



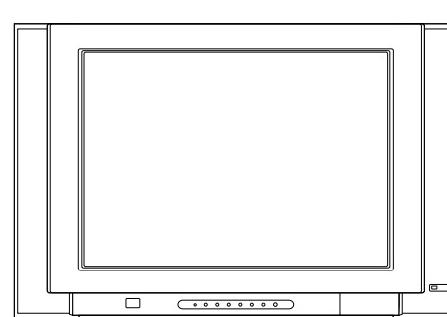
website:<http://biz.LGservice.com>  
e-mail:<http://www.LGservice.com/techsup.html>

# COLOR TV SERVICE MANUAL



P/NO : 3828VD0089A

Jan.,2003  
Printed in Korea



CHASSIS : MC-017A

**MODEL:RE/RL-29FA31PX  
RE/RL-29FA33X/PX**

## CAUTION

BEFORE SERVICING THE CHASSIS,  
READ THE SAFETY PRECAUTIONS IN THIS MANUAL.

## **CONTENTS**

<b>Contents .....</b>	<b>2</b>
<b>Safety Precautions .....</b>	<b>3</b>
<b>Specifications .....</b>	<b>4</b>
<b>Control Descriptions .....</b>	<b>5</b>
<b>Disassembly Instructions .....</b>	<b>8</b>
<b>Adjustment Instructions .....</b>	<b>9</b>
<b>Trouble Shooting .....</b>	<b>20</b>
<b>Wiring Diagram .....</b>	<b>25</b>
<b>Block Diagram .....</b>	<b>26</b>
<b>Exploded View .....</b>	<b>28</b>
<b>Exploded View Parts List .....</b>	<b>29</b>
<b>Replacement Parts List .....</b>	<b>30</b>
<b>SVC. Sheet .....</b>	

# SAFETY PRECAUTIONS

## IMPORTANT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These parts are identified by  in the Schematic Diagram and Replacement Parts List.  
It is essential that these special safety parts should be replaced with the same components as recommended in this manual to prevent X-RADIATION, Shock, Fire, or other Hazards.  
Do not modify the original design without permission of manufacturer.

### General Guidance

An **Isolation Transformer** should always be used during the servicing of a receiver whose chassis is not isolated from the AC power line. Use a transformer of adequate power rating as this protects the technician from accidents resulting in personal injury from electrical shocks.

It will also protect the receiver and its components from being damaged by accidental shorts of the circuitry that may be inadvertently introduced during the service operation.

If any fuse (or Fusible Resistor) in this TV receiver is blown, replace it with the specified.

When replacing a high wattage resistor (Oxide Metal Film Resistor, over 1W), keep the resistor 10mm away from PCB.

Keep wires away from high voltage or high temperature parts.

Due to high vacuum and large surface area of picture tube, extreme care should be used in **handling the Picture Tube**. Do not lift the Picture tube by its Neck.

### X-RAY Radiation

#### Warning:

The source of X-RAY RADIATION in this TV receiver is the High Voltage Section and the Picture Tube.  
For continued X-RAY RADIATION protection, the replacement tube must be the same type tube as specified in the Replacement Parts List.

To determine the presence of high voltage, use an accurate high impedance HV meter.

Adjust brightness, color, contrast controls to minimum.

Measure the high voltage.

The meter reading should indicate

23.5 ; 1.5KV: 14-19 inch, 26 ; 15KV: 19-21 inch,  
29.0 ; 1.5KV: 25-29 inch, 30.0 ; 1.5KV: 32 inch

If the meter indication is out of tolerance, immediate service and correction is required to prevent the possibility of premature component failure.

### Before returning the receiver to the customer,

always perform an **AC leakage current check** on the exposed metallic parts of the cabinet, such as antennas, terminals, etc., to be sure the set is safe to operate without damage of electrical shock.

#### Leakage Current Cold Check(Antenna Cold Check)

With the instrument AC plug removed from AC source, connect an electrical jumper across the two AC plug prongs. Place the AC switch in the on position, connect one lead of ohm-meter to the AC plug prongs tied together and touch other ohm-meter lead in turn to each exposed metallic parts such as antenna terminals, phone jacks, etc.

If the exposed metallic part has a return path to the chassis, the measured resistance should be between  $1M\Omega$  and  $5.2M\Omega$ .

When the exposed metal has no return path to the chassis the reading must be infinite.

An other abnormality exists that must be corrected before the receiver is returned to the customer.

#### Leakage Current Hot Check (See below Figure)

Plug the AC cord directly into the AC outlet.

#### Do not use a line Isolation Transformer during this check.

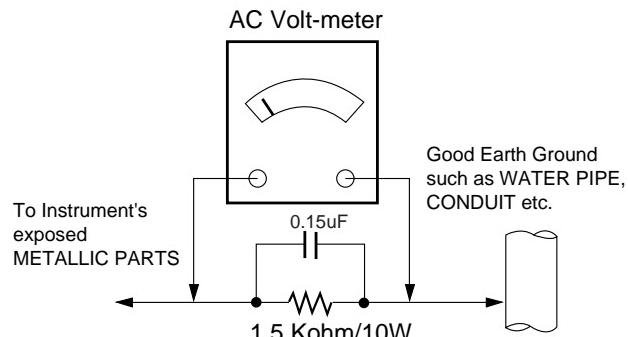
Connect 15K/10watt resistor in parallel with a 0.15uF capacitor between a known good earth ground (Water Pipe, Conduit, etc.) and the exposed metallic parts.

Measure the AC voltage across the resistor using AC voltmeter with 1000 ohms/volt or more sensitivity.

Reverse plug the AC cord into the AC outlet and repeat AC voltage measurements for each exposed metallic part. Any voltage measured must not exceed 0.75 volt RMS which corresponds to 0.5mA.

In case any measurement is out of the limits specified, there is possibility of shock hazard and the set must be checked and repaired before it is returned to the customer.

#### Leakage Current Hot Check circuit



# SPECIFICATIONS

**Note :** Specification and others are subject to change without notice for improvement.

- **Video input system:**

PAL-B/G, D/K, I/I  
SECAM-B/G, D/K/L/L'  
NTSC M  
NTSC 4.43(AV)

SOUND IF : 33.4MHz (B/G)  
32.9MHz (I/I)  
32.4MHz (D/K,L)  
34.4MHz (M)  
40.4MHz (L')

- **Intermediate Frequency (Unit : MHz)**

VISION IF : 38.9MHz,33.9MHz(SECAM-L')  
COLOR IF : 34.47MHz(4.43)  
35.32MHz(3.58) : NTSC-M  
( VIF-4.25000MHz ) : SECAM  
VIF-4.40625MHz

- **Power requirement :** 110~240V, 50/60Hz
- **Power consumption :** Max 155W
- **CPT :** Flat CPT

- **Tuning range**

Band	For TV				For CATV
	B/G	D/K	I/I	NTSC	
VHF-Low	Ch2-4	Ch1-5		Ch2-13	S1-S3', S1
VHF-High	Ch5-12	Ch6-12	Ch4-13		S2-S10, S11-S20
Hyper					S21-S41
UHF	Ch21-69			Ch14-69	

- **Tuning system :**

FVS  
100 Programme memory

- **Feature :**

Auto programme/Manual programme  
SVM (Scanning Velocity Modulation)

Digital Eye

Digital Comb Filter

Auto Sleep

Dynamic Focus

Programme Editing

PSM (Picture Status Memory)

SSM (Sound Status Memory)

CTI

Teletext (8 page)

Turbo Search, Picture & Sound

ACMS

ARC (Zoom 1/ZOOM 2, 16:9 <-> 4:3)

2 TUNER PIP(Double Window PIP)

- **Antenna input impedance :** VHF/UHF 75 ohm, unbalanced

- **OSD (On Screen Display) :** EZ MENU Type

- **Voice coil impedance :** 8 ohm

- **Sound output :** 10W

- **External connection :**

AV Input: 3 (side or front,rear)  
Component Input: 1(rear option)  
PERI TV Connector: Full Scart,AV Input or Scart(option)  
R,G,B Input: AV-1

- **External In/Output**

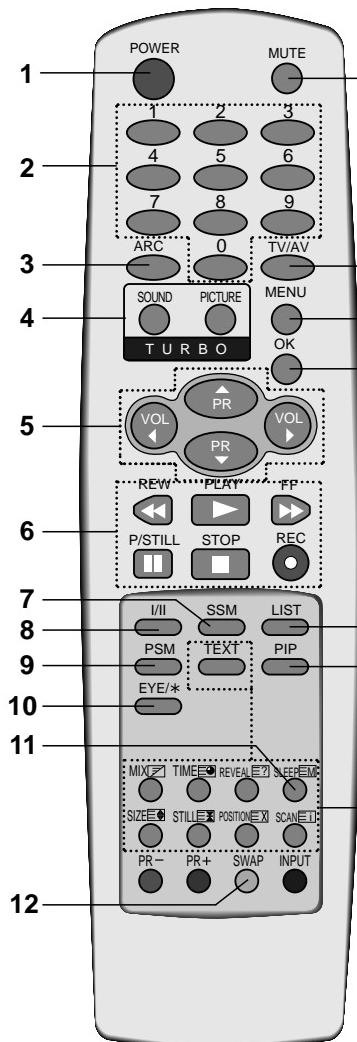
Audio-In:0.5Vrms±3db , over 10Kohm  
Audio-Out:0.5Vrms±3db , below 1Kohm  
Video-In/Out:1Vp-p±3db , 75ohm  
R,G,B In:0.7Vp-p±3db

# DESCRIPTION OF CONTROLS

All the functions can be controlled with the remote control handset. Some functions can also be adjusted with the buttons on the front panel of the set.

## Remote control handset

Before you use the remote control handset, please install the batteries. See the next page.



1. **POWER**  
switches the set on from standby or off to standby.
2. **NUMBER BUTTONS**  
switches the set on from standby or directly select a number.
3. **ARC (Aspect Ratio Control)**  
changes the picture format.
4. **TURBO PICTURE BUTTON**  
selects Turbo picture.
5. **TURBO SOUND BUTTON**  
selects Turbo sound.
6. **▲ / ▼ (Programme Up/Down)**  
selects a programme or a menu item.  
**◀ / ▶ (Volume Up/Down)**  
switches the set on from standby.  
adjusts the volume.
7. **SSM (Sound Status Memory)**  
adjusts menu settings.
8. **VCR BUTTONS**  
control a LG video cassette recorder.
9. **PSM (Picture Status Memory)**  
recalls your preferred sound setting.
10. **EYE/\***  
recalls your preferred picture setting.
11. **SLEEP**  
switches the eye function on or off.
12. **SWAP**  
sets the sleep timer.
13. **MUTE**
14. **TV/AV**
15. **MENU**
16. **OK**
17. **LIST**
18. **PIP**
19. **SLEEP**

### 13. MUTE

switches the sound on or off.

### 14. TV/AV

selects TV or AV mode.

clears the menu / text from the screen.

switches the set on from standby.

### 15. MENU

selects a menu.

### 16. OK

accepts your selection or displays the current mode.

### 17. LIST

displays the programme table.

### 18. PIP BUTTONS

#### PIP

switches the sub picture on or off.

#### PR +/-

selects a programme for the sub picture.

#### SWAP

alternates between main and sub picture.

#### INPUT

selects the input mode for the sub picture.

#### SIZE

adjusts the sub picture size.

#### STILL

freezes motion of the sub picture.

#### POSITION

relocates the sub picture in clockwise direction.

#### SCAN

switches on or off the programme scan mode through 4 sub pictures.

### 19. TELETEXT BUTTONS

These buttons are used for teletext.

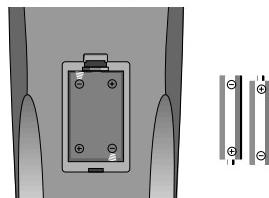
For further details, see the 'Teletext' section.

**Note :** In teletext mode, the **PR +/-**, **SWAP** and **INPUT** buttons are used for teletext function.

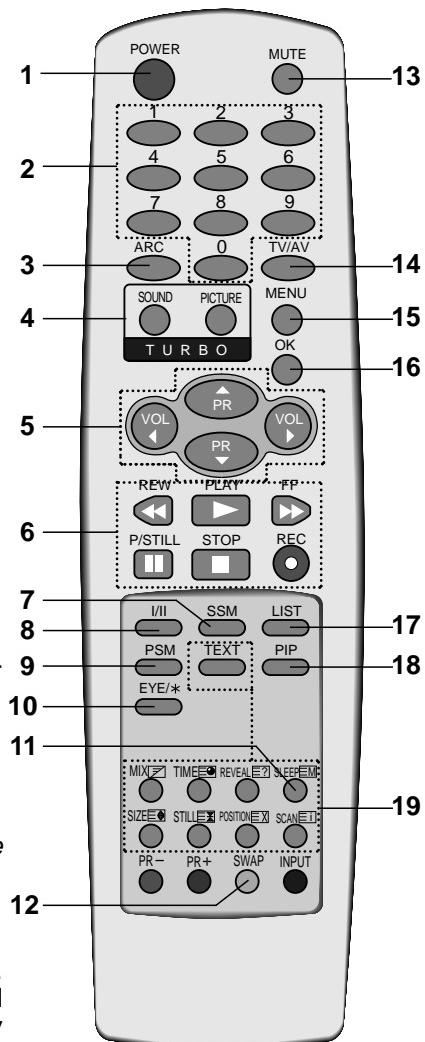
### Battery installation

The remote control handset is powered by two AAA type batteries.

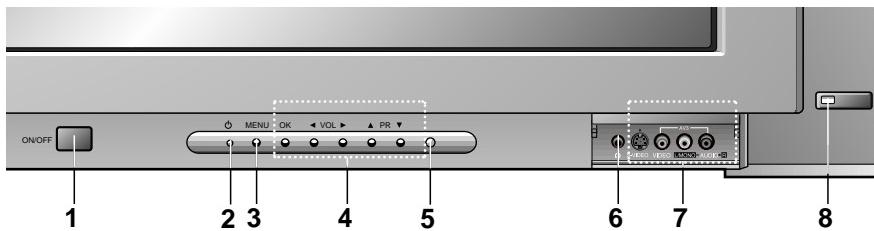
To load the batteries, turn the remote control handset over and open the battery compartment. Install two batteries as indicated by the polarity symbols (+) and (-) marked inside the compartment.



**Note :** To avoid damage from possible battery leakage, remove the batteries if you do not plan to use the remote control handset for an extended period of time.



## Front panel



1. **MAIN POWER**  
switches the set on or off.

2. **POWER/STANDBY INDICATOR**  
illuminates brightly when the set is in standby mode.  
dims when the set is switched on.

3. **MENU**  
selects a menu.

4. **OK**  
accepts your selection or displays the current mode.  
**◀ / ▶ (Volume Up/Down)**  
adjusts the volume.  
adjusts menu settings.  
**▲ / ▼ (Programme Up/Down)**  
selects a programme or a menu item.  
switches the set on from standby.

5. **REMOTE CONTROL SENSOR**

6. **HEADPHONE SOCKET**  
Connect the headphone plug to this socket.

7. **AUDIO/VIDEO IN SOCKETS (AV3)**  
Connect the audio/video out sockets of external equipment to these sockets.  
**S-VIDEO/AUDIO IN SOCKETS (S-AV)**  
Connect the video out socket of an S-VIDEO VCR to the **S-VIDEO** socket.  
Connect the audio out sockets of the S-VIDEO VCR to the audio sockets as in **AV3**.

8. **EYE**  
adjusts picture according to the surrounding conditions.

**Note :** Do not place any heavy objects (over 4 Kg) on the RE-29FA31 series models.

# DISASSEMBLY INSTRUCTIONS

## Important note

This set is disconnected from the power supply through the converter transformer. An isolating transformer is necessary for service operations on the primary side of the converter transformer.

## Back Cabinet Removal

Remove the screws residing on the back cabinet and carefully separate the back cabinet from the front cabinet. (Fig. 2-1).

## CPT Removal

1. Pull out the CPT board from the CPT neck.
2. Place the front cabinet on soft material not to mar the front surface or damage control knobs.
3. Remove 4 screws securing the picture tube mounting brackets to the front cabinet.
4. Carefully separate CPT from the front cabinet.

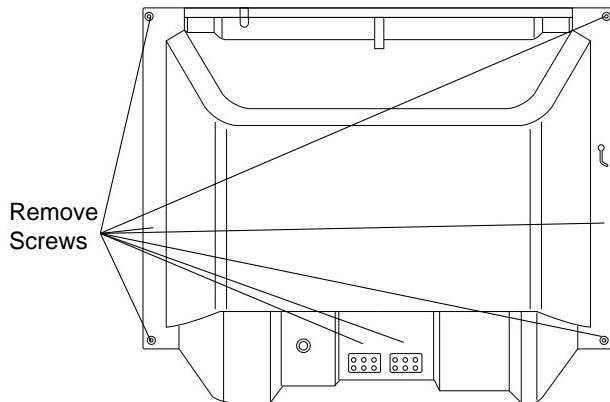


Fig. 2-1

## Chassis Assy Removal

Grasp both sides of Frame and pull it backward smoothly.

## PICTURE TUBE HANDLING CAUTION

Due to high vacuum and large surface area of picture tube, great care must be exercised when handling picture tube. Always lift picture tube by grasping it firmly around faceplate. NEVER LIFT TUBE BY ITS NECK! The picture tube must not be scratched or subjected to excessive pressure as fracture of glass may result in an implosion of considerable violence which can cause personal injury or property damage.

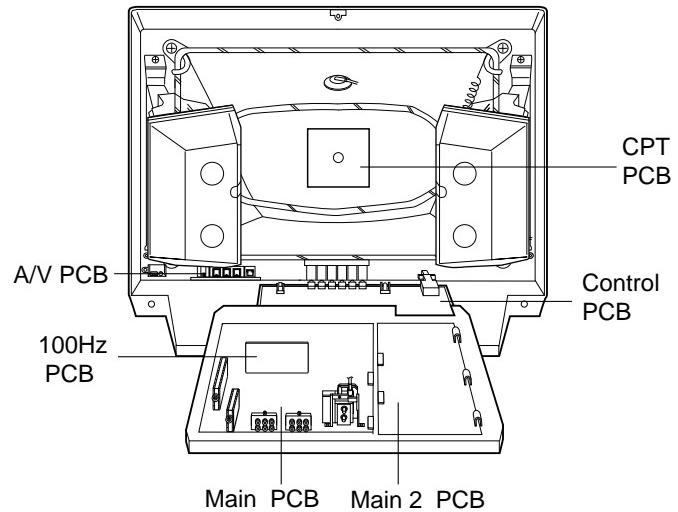


Fig. 2-2

# ADJUSTMENT INSTRUCTIONS

## ■ Safety Precautions

1. It is safe to adjust after using insulating transformer between the power supply line and chassis input to prevent the risk of electric shock and protect the instrument.
2. Never disconnect leads while the TV receiver is on.
3. Don't short any portion of circuits while power is on.
4. The adjustment must be done by the correct appliances.
5. Unless otherwise noted, set the line voltage to 230Vac $\pm$ 10%, 50Hz.
6. The adjustment of TV should be performed after warming up for 15 minutes.

## ■ Test Equipment required

1. RF signal generator (with pattern generator)
2. DC Power Supply
3. Multimeter (volt meter)
4. Oscilloscope
5. Color analyzer

## ● Focus Adjustment

Test Point	: Observing Display
Adjust	: Focus control of FBT

- 1) Tune the TV set to receive a digital pattern.
- 2) Adjust the lower Focus volume of FBT for the best focus of vertical line B.
- 3) Adjust the upper Focus volume of FBT for the best focus of area A.
- 4) Repeat above step 2) and 3) for the best overall focus.

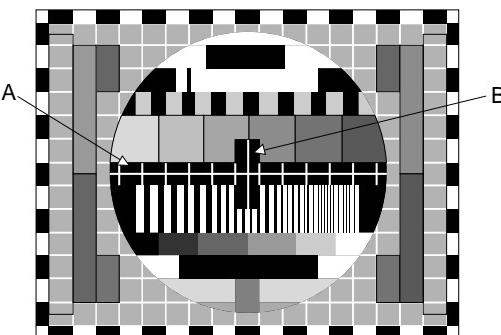


Fig. 1

## ● Screen Voltage Adjustment

- 1) Turn the TV set on.
- 2) This adjustment should be performed after warming up for more than 15 minutes.
- 3) Enter the SVC mode by pressing the SVC button on remote controller and by pressing the H-LINE button.
- 4) If "OK" appear more than 2 on the screen turning screen volume, press the "OK" button.

## ● White Balance Adjustment

**NOTE :** This adjustment should be performed after screen voltage adjustment.

- 1) Tune the TV set to receive an 100% white pattern.
- 2) Press Channel UP/DOWN button for desirous function Adjustment.
- 3) Press Volume UP/DOWN button to adjust the data.
- 4) Adjust until "CONTRAST" and "BRIGHT" become 3.5 Ft\_L
- 5) Enter the SVC mode by pressing the SVC button.
- 6) Adjust the Y value of High Light with R-DRIVE and adjust the X value with B-DRIVE until they have the color coordinate of High Light as below.
- 7) Adjust until "CONTRAST" and "BRIGHT" become 4.5 Ft\_L
- 8) Enter the adjustment mode by pressing the SVC button.
- 9) Adjust the Y value of Low Light with R-CUTOFF and adjust the X value with B-CUTOFF until they have the color coordinate of Low Light as below.
- 10) Repeat adjusting until the color coordinate of High and Low Light is satisfied.
- 11) Check the adjusted color coordinate with a white balance meter.

Color Tem.	X	Y	Memo
13000K	266 $\pm$ 8	273 $\pm$ 8	NON EU
10000K	282 $\pm$ 8	288 $\pm$ 8	EU

Menu	LG 29" FLAT	LG 32" FLAT	MENO
CR	0080		Low Light Adj
CG	0080		Low Light Adj
CB	0080		Low Light Adj
WR	019B		High Light Adj
WG	019B		High Light Adj
WB	019B		High Light Adj

## ● Deflection Data Adjustment

- 1) Deflection Data Adjustment should be performed with the remote controller for handset.
- 2) Enter the SVC mode by pressing the SVC button.
- 3) Enter the Deflection Adjustment mode by pressing the ADJUST button.
- 4) Press the Channel UP/DOWN button to select adjustment items.
- 5) Press the Volume UP/DOWN button to adjust the data.
- 6) The TV set receives PAL-B/G Digital pattern.

### VL (Vertical Linearity)

Adjust so that the boundary line between upper and lower half is in accord with geometric horizontal center of the CPT.

**VA (Vertical Amplitude)**

Adjust so that the circle of a digital circle pattern may be located within the effective screen of the CPT.

**SC (Vertical "S" Correction)**

Adjust so that all distance between each horizontal lines are to be the same.

**VS--(Vertical Shift)**

Adjust so that the horizontal center line of a digital circle pattern is in accord with geometric horizontal center of the CPT.

**HS (Horizontal Shift)**

Adjust so that the vertical center line of a digital circle pattern is in accord with geometric vertical center of the CPT.

**EW (Horizontal Width)**

Adjust to that a digital circle pattern looks like exact circle.

**ET--(East-west Trapezium)**

Adjust to make the length of top horizontal line same with it of the bottom horizontal line.

**EP (East-west Parabolar)**

Adjust so that middle portion of the outermost left and right vertical line looks like parallel with vertical lines of the CPT.

**CRNU & CRNL**

Adjust so that the vertical line at every 4 corners of the screen looks like parallel with the vertical lines of the CPT.

**BOW**

In line adjustment, not to change default value is basic.

**ANG**

In angle adjustment, adjust until inclination of left and right screen should be precise.

Menu	Range	LG 29" FLAT	PHILIP 32" FLAT	
VL	0~FFFF	0003	0000	
VA	0~FFFF	0022	002D	
SC	0~FFFF	0033	0000	
VS	0~FFFF	FFFD	FFFE	
HS	0~FFFF	0079	0079	
EW	0~FFFF	0011	001B	
ET	0~FFFF	FFFE	FFFF	
EP	0~FFFF	FFD1	FFC8	
CRNU	0~FFFF	000B	0002	
CRNL	0~FFFF	000A	0002	
BOW	0~FFFF	0000	0000	
ANGLE	0~FFFF	0000	0000	
CRNU6	0~FFFF	FFF9	0000	
CRNL6	0~FFFF	FFFC	0001	

- **OPTION Adjustment (SVC MODE:OPTION-1, OPTION-2, OPTION-3, Teletext)**

- 1) Press YELLOW button or OP1,OP2,OP3,OP4 button on SVC Remote Controller .
- 2) Input data directly by the buttons corresponded with OPTION1 ???(0~127), OPTION2 ??(0~63), OPTION3 ???(0~127) .
- 3) Select each OPTION function by the CH Up/Down button and then set up each OPTION by the VOL Up/Down button.

**Table 1. OPTION 1 Function**

Option	Code	Function	Remark
TEXT	0	Without TXT	
	1	With TXT	
TOP	0	FLOP TXT	Without TOP Text
	1	TOP TEXT	
ACMS	0	Without ACMS funtion	Australia
	1	With ACMS funtion	
CH+AU	0	Without D/K CHINA or BB System	
	1	With D/K CHINA or BB System	
EYE	0	WITHOUT EYE	
	1	WITH EYE	
TURBO	0	Without TURBO SEARCH Funtion	
	1	With TURBO SEARCH Funtion	

**Table 2. OPTION 1 CODE Data**

OPTION Data	TXT	TOP	ACMS	CH+AU	EYE	TORBO
0	0	0	0	0	0	0
1	0	0	0	0	0	1
2	0	0	0	0	1	0
3	0	0	0	0	1	1
4	0	0	0	1	0	0
5	0	0	0	1	0	1
6	0	0	0	1	1	0
7	0	0	0	1	1	1
8	0	0	1	0	0	0
9	0	0	1	0	0	1
10	0	0	1	0	1	0
11	0	0	1	0	1	1
12	0	0	1	1	0	0
13	0	0	1	1	0	1
14	0	0	1	1	1	0
15	0	0	1	1	1	1
16	0	1	0	0	0	0

DATA	TXT	TOP	ACMS	CH+AU	EYE	TURBO
17	0	1	0	0	0	1
18	0	1	0	0	1	0
19	0	1	0	0	1	1
20	0	1	0	1	0	0
21	0	1	0	1	0	1
22	0	1	0	1	1	0
23	0	1	0	1	1	1
24	0	1	1	0	0	0
25	0	1	1	0	0	1
26	0	1	1	0	1	0
27	0	1	1	0	1	1
28	0	1	1	1	0	0
29	0	1	1	1	0	1
30	0	1	1	1	1	0
31	0	1	1	1	1	1
32	1	0	0	0	0	0
33	1	0	0	0	0	1
34	1	0	0	0	1	0
35	1	0	0	0	1	1
36	1	0	0	1	0	0
37	1	0	0	1	0	1
38	1	0	0	1	1	0
39	1	0	0	1	1	1
40	1	0	1	0	0	0
41	1	0	1	0	0	1
42	1	0	1	0	1	0
43	1	0	1	0	1	1
44	1	0	1	1	0	0
45	1	0	1	1	0	1
46	1	0	1	1	1	0
47	1	0	1	1	1	1
48	1	1	0	0	0	0
49	1	1	0	0	0	1
50	1	1	0	0	1	0
51	1	1	0	0	1	1
52	1	1	0	1	0	0
53	1	1	0	1	0	1
54	1	1	0	1	1	0
55	1	1	0	1	1	1
56	1	1	1	0	0	0
57	1	1	1	0	0	1
58	1	1	1	0	1	0
59	1	1	1	0	1	1
60	1	1	1	1	0	0
61	1	1	1	1	0	1
62	1	1	1	1	1	0
63	1	1	1	1	1	1

Table 3. OPTION 2 Function

Option	Code	Function	Remark
C MUTE	0	CARRIER MUTE(MSP-3410)	EU
	1	Not CARRIER MUTE(MSP-3410)	NON EU
A2 ST	0	NICAM Check	
	1	NICAM & FM STEREO	
I/II SV	0	NO SAVE DUAL/SOUND Condition	EU
	1	SAVE DUAL SOUND Condition	NON EU
MONO	0	Without Forced MONO sound System	
	1	With Forced MONO sound System	
VOL	0	NORMAL VOLUME CURVE	
	1	RUSHED VOLUME CURVE	
200 PR	0	100 PROGRAM SAVE	CHINA ONLY
	1	200 PROGRAM SAVE	
SYS	0	B/G,I,D/K	
	1	B/G,I,D/K,L/L'	
	2	B/G,I,D/K,M	
	3	RESERVED	

Table 4. OPTION 2 CODE Data

OPTION Data	CMUTE	A2 ST	AI/II SV	MONO	VOL	200 PRO	SYS
0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1
2	0	0	0	0	0	0	2
3	0	0	0	0	0	0	3
4	0	0	0	0	0	1	0
5	0	0	0	0	0	1	1
6	0	0	0	0	0	1	2
7	0	0	0	0	0	1	3
8	0	0	0	0	1	0	0
9	0	0	0	0	1	0	1
10	0	0	0	0	1	0	2
11	0	0	0	0	1	0	3
12	0	0	0	0	1	1	0
13	0	0	0	0	1	1	1
14	0	0	0	0	1	1	2
15	0	0	0	0	1	1	3
16	0	0	0	1	0	0	0
17	0	0	0	1	0	0	1
18	0	0	0	1	0	0	2
19	0	0	0	1	0	0	3
20	0	0	0	1	0	1	0
21	0	0	0	1	0	1	1
22	0	0	0	1	0	1	2
23	0	0	0	1	0	1	3
24	0	0	0	1	1	0	0

OPTION Data	CMUTE	A2 ST	I/I SV	MONO	VOL	200 PRO	SYS
25	0	0	0	1	1	0	1
26	0	0	0	1	1	0	2
27	0	0	0	1	1	0	3
28	0	0	0	1	1	1	0
29	0	0	0	1	1	1	1
30	0	0	0	1	1	1	2
31	0	0	0	1	1	1	3
32	0	0	1	0	0	0	0
33	0	0	1	0	0	0	1
34	0	0	1	0	0	0	2
35	0	0	1	0	0	0	3
36	0	0	1	0	0	1	0
37	0	0	1	0	0	1	1
38	0	0	1	0	0	1	2
39	0	0	1	0	0	1	3
40	0	0	1	0	1	0	0
41	0	0	1	0	1	0	1
42	0	0	1	0	1	0	2
43	0	0	1	0	1	0	3
44	0	0	1	0	1	1	0
45	0	0	1	0	1	1	1
46	0	0	1	0	1	1	2
47	0	0	1	0	1	1	3
48	0	0	1	1	0	0	0
49	0	0	1	1	0	0	1
50	0	0	1	1	0	0	2
51	0	0	1	1	0	0	3
52	0	0	1	1	0	1	0
53	0	0	1	1	0	1	1
54	0	0	1	1	0	1	2
55	0	0	1	1	0	1	3
56	0	0	1	1	1	0	0
57	0	0	1	1	1	0	1
58	0	0	1	1	1	0	2
59	0	0	1	1	1	0	3
60	0	0	1	1	1	1	0
61	0	0	1	1	1	1	1
62	0	0	1	1	1	1	2
63	0	0	1	1	1	1	3
64	0	1	0	0	0	0	0
65	0	1	0	0	0	0	1
66	0	1	0	0	0	0	2
67	0	1	0	0	0	0	3
68	0	1	0	0	0	1	0
69	0	1	0	0	0	1	1
70	0	1	0	0	0	1	2

OPTION Data	CMUTE	A2 ST	I/I SV	MONO	VOL	200 PRO	SYS
71	0	1	0	0	0	1	3
72	0	1	0	0	1	0	0
73	0	1	0	0	1	0	1
74	0	1	0	0	1	0	2
75	0	1	0	0	1	0	3
76	0	1	0	0	1	1	0
77	0	1	0	0	1	1	1
78	0	1	0	0	1	1	2
79	0	1	0	0	1	1	3
80	0	1	0	1	0	0	0
81	0	1	0	1	0	0	1
82	0	1	0	1	0	0	2
83	0	1	0	1	0	0	3
84	0	1	0	1	0	1	0
85	0	1	0	1	0	1	1
86	0	1	0	1	0	1	2
87	0	1	0	1	0	1	3
88	0	1	0	1	1	0	0
89	0	1	0	1	1	0	1
90	0	1	0	1	1	0	2
91	0	1	0	1	1	0	3
92	0	1	0	1	1	1	0
93	0	1	0	1	1	1	1
94	0	1	0	1	1	1	2
95	0	1	0	1	1	1	3
96	0	1	1	0	0	0	0
97	0	1	1	0	0	0	1
98	0	1	1	0	0	0	2
99	0	1	1	0	0	0	3
100	0	1	1	0	0	1	0
101	0	1	1	0	0	1	1
102	0	1	1	0	0	1	2
103	0	1	1	0	0	1	3
104	0	1	1	0	1	0	0
105	0	1	1	0	1	0	1
106	0	1	1	0	1	0	2
107	0	1	1	0	1	0	3
108	0	1	1	0	1	1	0
109	0	1	1	0	1	1	1
110	0	1	1	0	1	1	2
111	0	1	1	0	1	1	3
112	0	1	1	1	0	0	0
113	0	1	1	1	0	0	1
114	0	1	1	1	0	0	2
115	0	1	1	1	0	0	3
116	0	1	1	1	0	1	0

OPTION Data	CMUTE	A2 ST	I/I SV	MONO	VOL	200 PRO	SYS
117	0	1	1	1	0	1	1
118	0	1	1	1	0	1	2
119	0	1	1	1	0	1	3
120	0	1	1	1	1	0	0
121	0	1	1	1	1	0	1
122	0	1	1	1	1	0	2
123	0	1	1	1	1	0	3
124	0	1	1	1	1	1	0
125	0	1	1	1	1	1	1
126	0	1	1	1	1	1	2
127	0	1	1	1	1	1	3
128	1	0	0	0	0	0	0
129	1	0	0	0	0	0	1
130	1	0	0	0	0	0	2
131	1	0	0	0	0	0	3
132	1	0	0	0	0	1	0
133	1	0	0	0	0	1	1
134	1	0	0	0	0	1	2
135	1	0	0	0	0	1	3
136	1	0	0	0	1	0	0
137	1	0	0	0	1	0	1
138	1	0	0	0	1	0	2
139	1	0	0	0	1	0	3
140	1	0	0	0	1	1	0
141	1	0	0	0	1	1	1
142	1	0	0	0	1	1	2
143	1	0	0	0	1	1	3
144	1	0	0	1	0	0	0
145	1	0	0	1	0	0	1
146	1	0	0	1	0	0	2
147	1	0	0	1	0	0	3
148	1	0	0	1	0	1	0
149	1	0	0	1	0	1	1
150	1	0	0	1	0	1	2
151	1	0	0	1	0	1	3
152	1	0	0	1	1	0	0
153	1	0	0	1	1	0	1
154	1	0	0	1	1	0	2
155	1	0	0	1	1	0	3
156	1	0	0	1	1	1	0
157	1	0	0	1	1	1	1
158	1	0	0	1	1	1	2
159	1	0	0	1	1	1	3
160	1	0	1	0	0	0	0
161	1	0	1	0	0	0	1
162	1	0	1	0	0	0	2

OPTION Data	CMUTE	A2 ST	I/I SV	MONO	VOL	200 PRO	SYS
163	1	0	1	0	0	0	3
164	1	0	1	0	0	1	0
165	1	0	1	0	0	1	1
166	1	0	1	0	0	1	2
167	1	0	1	0	0	1	3
168	1	0	1	0	1	0	0
169	1	0	1	0	1	0	1
170	1	0	1	0	1	0	2
171	1	0	1	0	1	0	3
172	1	0	1	0	1	1	0
173	1	0	1	0	1	1	1
174	1	0	1	0	1	1	2
175	1	0	1	0	1	1	3
176	1	0	1	1	0	0	0
177	1	0	1	1	0	0	1
178	1	0	1	1	0	0	2
179	1	0	1	1	0	0	3
180	1	0	1	1	0	1	0
181	1	0	1	1	0	1	1
182	1	0	1	1	0	1	2
183	1	0	1	1	0	1	3
184	1	0	1	1	1	0	0
185	1	0	1	1	1	0	1
186	1	0	1	1	1	0	2
187	1	0	1	1	1	0	3
188	1	0	1	1	1	1	0
189	1	0	1	1	1	1	1
190	1	0	1	1	1	1	2
191	1	0	1	1	1	1	3
192	1	1	0	0	0	0	0
193	1	1	0	0	0	0	1
194	1	1	0	0	0	0	2
195	1	1	0	0	0	0	3
196	1	1	0	0	0	1	0
197	1	1	0	0	0	1	1
198	1	1	0	0	0	1	2
199	1	1	0	0	0	1	3
200	1	1	0	0	1	0	0
201	1	1	0	0	1	0	1
202	1	1	0	0	1	0	2
203	1	1	0	0	1	0	3
204	1	1	0	0	1	1	0
205	1	1	0	0	1	1	1
206	1	1	0	0	1	1	2
207	1	1	0	0	1	1	3
208	1	1	0	1	0	0	0

OPTION Data	CMUTE	A2 ST	I/I SV	MONO	VOL	200 PR	SYS
209	1	1	0	1	0	0	1
210	1	1	0	1	0	0	2
211	1	1	0	1	0	0	3
212	1	1	0	1	0	1	0
213	1	1	0	1	0	1	1
214	1	1	0	1	0	1	2
215	1	1	0	1	0	1	3
216	1	1	0	1	1	0	0
217	1	1	0	1	1	0	1
218	1	1	0	1	1	0	2
219	1	1	0	1	1	0	3
220	1	1	0	1	1	1	0
221	1	1	0	1	1	1	1
222	1	1	0	1	1	1	2
223	1	1	0	1	1	1	3
224	1	1	1	0	0	0	0
225	1	1	1	0	0	0	1
226	1	1	1	0	0	0	2
227	1	1	1	0	0	0	3
228	1	1	1	0	0	1	0
229	1	1	1	0	0	1	1
230	1	1	1	0	0	1	2
231	1	1	1	0	0	1	3
232	1	1	1	0	0	0	0
233	1	1	1	0	1	0	1
234	1	1	1	0	1	0	2
235	1	1	1	0	1	0	3
236	1	1	1	0	1	1	0
237	1	1	1	0	1	1	1
238	1	1	1	0	1	1	2
239	1	1	1	0	1	1	3
240	1	1	1	1	1	0	0
241	1	1	1	1	0	0	1
242	1	1	1	1	0	0	2
243	1	1	1	1	0	0	3
244	1	1	1	1	0	1	0
245	1	1	1	1	0	1	1
246	1	1	1	1	0	1	2
247	1	1	1	1	0	1	3
248	1	1	1	1	1	0	0
249	1	1	1	1	1	0	1
250	1	1	1	1	1	0	2
251	1	1	1	1	1	0	3
252	1	1	1	1	1	1	0
253	1	1	1	1	1	1	1
254	1	1	1	1	1	1	2

OPTION Data	CMUTE	A2 ST	I/I SV	MONO	VOL	200 PR	SYS
255	1	1	1	1	1	1	3

Table 5. OPTION 2 Function

Option	Code	Function	Remark
TBS	0	BOOSTER CONTROL	W/O PIP MODEL W/PIP MODEL
	1		
TOUCH	0	LOCAL KEY SOFT TOUCH	
	1		
DOLBY	0	NO VIRTUAL DOLBY VIRTUAL DOLBY	MSP3411
	1		
HP VOL	0	WITHOUT H/PHONE VOLUME WITH H/PHONE VOLUME	
	1		
WOOF	0	WITHOUT WOOF SPEAKER WITH WOOF SPEAKER	
	1		
WIDE	0	4:3 TV 16:9 TV	
	1		
DVD	0	WITHOUT DVD INPUT WITH DVD INPUT	
	1		
SCART	0	PHONE JACK SCART JACK	
	1		

**Table 6. OPTION 3 CODE Data**

DATA	TBS	TOUCH	DOLBY	HPVOL	WOOF	WIDE	DVD	SCART
0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	1
2	0	0	0	0	0	0	1	0
3	0	0	0	0	0	0	1	1
4	0	0	0	0	0	1	0	0
5	0	0	0	0	0	1	0	1
6	0	0	0	0	0	1	1	0
7	0	0	0	0	0	1	1	1
8	0	0	0	0	1	0	0	0
9	0	0	0	0	1	0	0	1
10	0	0	0	0	1	0	1	0
11	0	0	0	0	1	0	1	1
12	0	0	0	0	1	1	0	0
13	0	0	0	0	1	1	0	1
14	0	0	0	0	1	1	1	0
15	0	0	0	0	1	1	1	1
16	0	0	0	1	0	0	0	0
17	0	0	0	1	0	0	0	1
18	0	0	0	1	0	0	1	0
19	0	0	0	1	0	0	1	1
20	0	0	0	1	0	1	0	0
21	0	0	0	1	0	1	0	1
22	0	0	0	1	0	1	1	0
23	0	0	0	1	0	1	1	1
24	0	0	0	1	1	0	0	0
25	0	0	0	1	1	0	0	1
26	0	0	0	1	1	0	1	0
27	0	0	0	1	1	0	1	1
28	0	0	0	1	1	1	0	0
29	0	0	0	1	1	1	0	1
30	0	0	0	1	1	1	1	0
31	0	0	0	1	1	1	1	1
32	0	0	1	0	0	0	0	0
33	0	0	1	0	0	0	0	1
34	0	0	1	0	0	0	1	0
35	0	0	1	0	0	0	1	1
36	0	0	1	0	0	1	0	0
37	0	0	1	0	0	1	0	1
38	0	0	1	0	0	1	1	0
39	0	0	1	0	0	1	1	1
40	0	0	1	0	1	0	0	0
41	0	0	1	0	1	0	0	1
42	0	0	1	0	1	0	1	0
43	0	0	1	0	1	0	1	1
44	0	0	1	0	1	1	0	0

DATA	TBS	TOUCH	DOLBY	HPVOL	WOOF	WIDE	DVD	SCART
45	0	0	1	0	1	1	0	1
46	0	0	1	0	1	1	1	0
47	0	0	1	0	1	1	1	1
48	0	0	1	1	0	0	0	0
49	0	0	1	1	0	0	0	1
50	0	0	1	1	0	0	1	0
51	0	0	1	1	0	0	1	1
52	0	0	1	1	0	1	0	0
53	0	0	1	1	0	1	0	1
54	0	0	1	1	0	1	1	0
55	0	0	1	1	0	1	1	1
56	0	0	1	1	1	0	0	0
57	0	0	1	1	1	0	0	1
58	0	0	1	1	1	0	1	0
59	0	0	1	1	1	0	1	1
60	0	0	1	1	1	1	0	0
61	0	0	1	1	1	1	0	1
62	0	0	1	1	1	1	1	0
63	0	0	1	1	1	1	1	1
64	0	1	0	0	0	0	0	0
65	0	1	0	0	0	0	0	1
66	0	1	0	0	0	0	0	1
67	0	1	0	0	0	0	1	1
68	0	1	0	0	0	1	0	0
69	0	1	0	0	0	1	0	1
70	0	1	0	0	0	1	1	0
71	0	1	0	0	0	1	1	1
72	0	1	0	0	1	0	0	0
73	0	1	0	0	1	0	0	1
74	0	1	0	0	1	0	1	0
75	0	1	0	0	1	0	1	1
76	0	1	0	0	1	1	0	0
77	0	1	0	0	1	1	0	1
78	0	1	0	0	1	1	1	0
79	0	1	0	0	1	1	1	1
80	0	1	0	1	0	0	0	0
81	0	1	0	1	0	0	0	1
82	0	1	0	1	0	0	1	0
83	0	1	0	1	0	0	0	1
84	0	1	0	1	0	1	0	0
85	0	1	0	1	0	1	0	1
86	0	1	0	1	0	1	1	0
87	0	1	0	1	0	1	1	1
88	0	1	0	1	1	0	0	0
89	0	1	0	1	1	0	0	1
90	0	1	0	1	1	0	1	0

DATA	TBS	TOUCH	DOLBY	HPIVOL	WOOF	WIDE	DVD	SCART
91	0	1	0	1	1	0	1	1
92	0	1	0	1	1	1	0	0
93	0	1	0	1	1	1	0	1
94	0	1	0	1	1	1	1	0
95	0	1	1	0	0	1	1	1
96	0	1	1	0	0	0	0	0
97	0	1	1	0	0	0	0	1
98	0	1	1	0	0	0	1	0
99	0	1	1	0	0	0	1	1
100	0	1	1	0	0	1	0	0
101	0	1	1	0	0	1	0	1
102	0	1	1	0	0	1	1	0
103	0	1	1	0	1	1	1	1
104	0	1	1	0	1	0	0	0
105	0	1	1	0	1	0	0	1
106	0	1	1	0	1	0	1	0
107	0	1	1	0	1	0	1	1
108	0	1	1	0	1	1	0	0
109	0	1	1	0	1	1	0	1
110	0	1	1	0	1	1	1	0
111	0	1	1	0	0	1	1	1
112	0	1	1	1	0	0	0	0
113	0	1	1	1	0	0	0	1
114	0	1	1	1	0	0	1	0
115	0	1	1	1	0	0	1	1
116	0	1	1	1	0	1	0	0
117	0	1	1	1	0	1	0	1
118	0	1	1	1	0	1	1	0
119	0	1	1	1	1	1	1	1
120	0	1	1	1	1	0	0	0
121	0	1	1	1	1	0	0	1
122	0	1	1	1	1	0	1	0
123	0	1	1	1	1	0	1	1
124	0	1	1	1	1	1	0	0
125	0	1	1	1	1	1	0	1
126	0	1	1	1	1	1	1	0
127	0	1	1	1	0	1	1	1
128	1	0	0	0	0	0	0	0
129	1	0	0	0	0	0	0	1
130	1	0	0	0	0	0	1	0
131	1	0	0	0	0	0	1	1
132	1	0	0	0	0	1	0	0
133	1	0	0	0	0	1	0	1
134	1	0	0	0	0	1	1	0
135	1	0	0	0	1	1	1	1
136	1	0	0	0	1	0	0	0

DATA	TBS	TOUCH	DOLBY	HPIVOL	WOOF	WIDE	DVD	SCART
137	1	0	0	0	1	0	0	1
138	1	0	0	0	1	0	1	0
139	1	0	0	0	1	0	1	1
140	1	0	0	0	1	1	0	0
141	1	0	0	0	1	1	0	1
142	1	0	0	0	1	1	1	0
143	1	0	0	0	1	1	1	1
144	1	0	0	1	0	0	0	0
145	1	0	0	1	0	0	0	1
146	1	0	0	1	0	0	1	0
147	1	0	0	1	0	0	1	1
148	1	0	0	1	0	1	0	0
149	1	0	0	1	0	1	0	1
150	1	0	0	1	0	1	1	0
151	1	0	0	1	0	1	1	1
152	1	0	0	1	1	0	0	0
153	1	0	0	1	1	0	0	1
154	1	0	0	1	1	0	1	0
155	1	0	0	1	1	0	1	1
156	1	0	0	1	1	1	0	0
157	1	0	0	1	1	1	0	1
158	1	0	0	1	1	1	1	0
159	1	0	0	1	1	1	1	1
160	1	0	1	0	0	0	0	0
161	1	0	1	0	0	0	0	1
162	1	0	1	0	0	0	0	1
163	1	0	1	0	0	0	0	1
164	1	0	1	0	0	1	0	0
165	1	0	1	0	0	0	1	0
166	1	0	1	0	0	0	1	1
167	1	0	1	0	0	1	1	1
168	1	0	1	0	1	0	0	0
169	1	0	1	0	1	0	0	1
170	1	0	1	0	1	0	1	0
171	1	0	1	0	1	0	0	1
172	1	0	1	0	1	1	0	0
173	1	0	1	0	1	1	0	1
174	1	0	1	0	1	1	1	0
175	1	0	1	0	1	1	1	1
176	1	0	1	1	0	0	0	0
177	1	0	1	1	0	0	0	1
178	1	0	1	1	0	0	1	0
179	1	0	1	1	0	0	1	1
180	1	0	1	1	0	1	0	0
181	1	0	1	1	0	1	0	1
182	1	0	1	1	0	1	1	0

DATA	TBS	TOUCH	DOLBY	HPVOL	WOOF	WIDE	DVD	SCART
183	1	0	1	1	0	1	1	1
184	1	0	1	1	1	0	0	0
185	1	0	1	1	1	0	0	1
186	1	0	1	1	1	0	1	0
187	1	0	1	1	1	0	1	1
188	1	0	1	1	1	1	0	0
189	1	0	1	1	1	1	0	1
190	1	0	1	1	1	1	1	0
191	1	0	1	1	1	1	1	1
192	1	1	0	0	0	0	0	0
193	1	1	0	0	0	0	0	1
194	1	1	0	0	0	0	1	0
195	1	1	0	0	0	0	1	1
196	1	1	0	0	0	1	0	0
197	1	1	0	0	0	1	0	1
198	1	1	0	0	0	1	1	0
199	1	1	0	0	0	1	1	1
200	1	1	0	0	1	0	0	0
201	1	1	0	0	1	0	0	1
202	1	1	0	0	1	0	1	0
203	1	1	0	0	1	0	1	1
204	1	1	0	0	1	1	0	0
205	1	1	0	0	1	1	0	1
206	1	1	0	0	1	1	1	0
207	1	1	0	0	1	1	1	1
208	1	1	0	1	0	0	0	0
209	1	1	0	1	0	0	0	1
210	1	1	0	1	0	0	1	0
211	1	1	0	1	0	0	1	1
212	1	1	0	1	0	1	0	0
213	1	1	0	1	0	1	0	1
214	1	1	0	1	0	1	1	0
215	1	1	0	1	1	1	1	1
216	1	1	0	1	1	0	0	0
217	1	1	0	1	1	0	0	1
218	1	1	0	1	1	0	1	0
219	1	1	0	1	1	0	1	1
220	1	1	0	1	1	1	0	0
221	1	1	0	1	1	1	0	1
222	1	1	0	1	1	1	1	0
223	1	1	1	0	0	1	1	1
224	1	1	1	0	0	0	0	0
225	1	1	1	0	0	0	0	1
226	1	1	1	0	0	0	1	0
227	1	1	1	0	0	0	1	1
228	1	1	1	0	0	1	0	0

DATA	TBS	TOUCH	DOLBY	HPVOL	WOOF	WIDE	DVD	SCART
229	1	1	1	0	0	1	0	1
230	1	1	1	0	0	1	1	0
231	1	1	1	0	0	1	1	1
232	1	1	1	0	1	0	0	0
233	1	1	1	0	1	0	0	1
234	1	1	1	0	1	0	1	0
235	1	1	1	0	1	0	1	1
236	1	1	1	0	1	1	0	0
237	1	1	1	0	1	1	0	1
238	1	1	1	0	1	1	1	0
239	1	1	1	0	1	1	1	1
240	1	1	1	1	0	0	0	0
241	1	1	1	1	0	0	0	1
242	1	1	1	1	0	0	1	0
243	1	1	1	1	0	0	1	1
244	1	1	1	1	0	1	0	0
245	1	1	1	1	0	1	0	1
246	1	1	1	1	0	1	1	0
247	1	1	1	1	0	1	1	1
248	1	1	1	1	1	0	0	0
249	1	1	1	1	1	0	0	1
250	1	1	1	1	1	0	1	0
251	1	1	1	1	1	0	1	1
252	1	1	1	1	1	1	0	0
253	1	1	1	1	1	1	0	1
254	1	1	1	1	1	1	1	0
255	1	1	1	1	1	1	1	1

**Table 7. OPTION 4 Function**

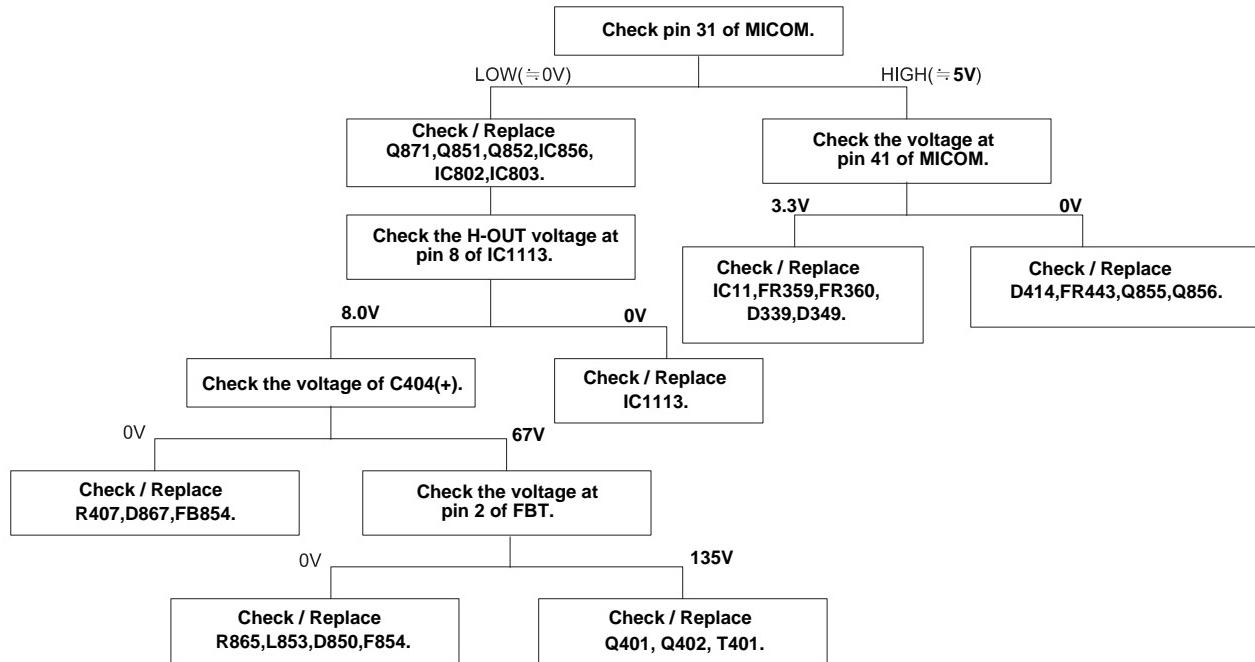
OPTION	CODE	Language	Function
LANG	0	E Only	English
	1	English+EU 4	English/German/French/Italian/Spanish
	2	English+Other EU	English/Dutch/Swedish/Norwegian/Danish/Swiss/Portuguese/Romanian/Polish/Hungarian/Czech/Russian
T LAN	0	West Europe	
	1	East Europe	
	2	Turkey	
	3	Czecho/Hungary	
	4	Cyrillic 1	
	5	Cyrillic 2	
	6	Cyrillic 3	
	7	Turkey/Greek 1	
	8	Turkey/Greek 2	
	9	Turkey/Greek 3	
	10	Arab/France	
	11	Arab/English	
	12	Arab/Hebrew 1	
	13	Arab/Hebrew 2	
	14	Farsi/English	
	15	Farsi/France	
	16	Farsi all	

**Table 8. OPTION 4 Code Data**

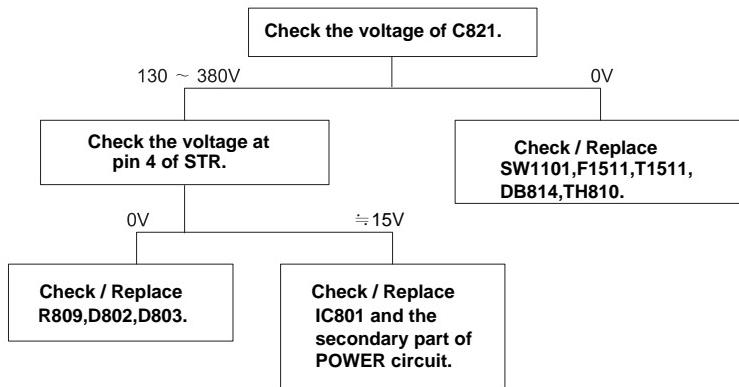
DATA	LANG	TLAN									
000	0	0	203	2	3	406	4	6	609	6	9
001	0	1	204	2	4	407	4	7	610	6	10
002	0	2	205	2	5	408	4	8	611	6	11
003	0	3	206	2	6	409	4	9	612	6	12
004	0	4	207	2	7	410	4	10	613	6	13
005	0	5	208	2	8	411	4	11	614	6	14
006	0	6	209	2	9	412	4	12	615	6	15
007	0	7	210	2	10	413	4	13	616	6	16
008	0	8	211	2	11	414	4	14	700	7	0
009	0	9	212	2	12	415	4	15	701	7	1
010	0	10	213	2	13	416	4	16	702	7	2
011	0	11	214	2	14	500	5	0	703	7	3
012	0	12	215	2	15	501	5	1	704	7	4
013	0	13	216	2	16	502	5	2	705	7	5
014	0	14	300	3	0	503	5	3	706	7	6
015	0	15	301	3	1	504	5	4	707	7	7
016	0	16	302	3	2	505	5	5	708	7	8
100	1	0	303	3	3	506	5	6	709	7	9
101	1	1	304	3	4	507	5	7	710	7	10
102	1	2	305	3	5	508	5	8	711	7	11
103	1	3	306	3	6	509	5	9	712	7	12
104	1	4	307	3	7	510	5	10	713	7	13
105	1	5	308	3	8	511	5	11	714	7	14
106	1	6	309	3	9	512	5	12	715	7	15
107	1	7	310	3	10	513	5	13	716	7	16
108	1	8	311	3	11	514	5	14	800	8	0
109	1	9	312	3	12	515	5	15	801	8	1
110	1	10	313	3	13	516	5	16	802	8	2
111	1	11	314	3	14	600	6	0	803	8	3
112	1	12	315	3	15	601	6	1	804	8	4
113	1	13	316	3	16	602	6	2	805	8	5
114	1	14	400	4	0	603	6	3	806	8	6
115	1	15	401	4	1	604	6	4	807	8	7
116	1	16	402	4	2	605	6	5	808	8	8
200	2	0	403	4	3	606	6	6	809	8	9
201	2	1	404	4	4	607	6	7	810	8	10
202	2	2	405	4	5	608	6	8	811	8	11

# TROUBLE SHOOTING

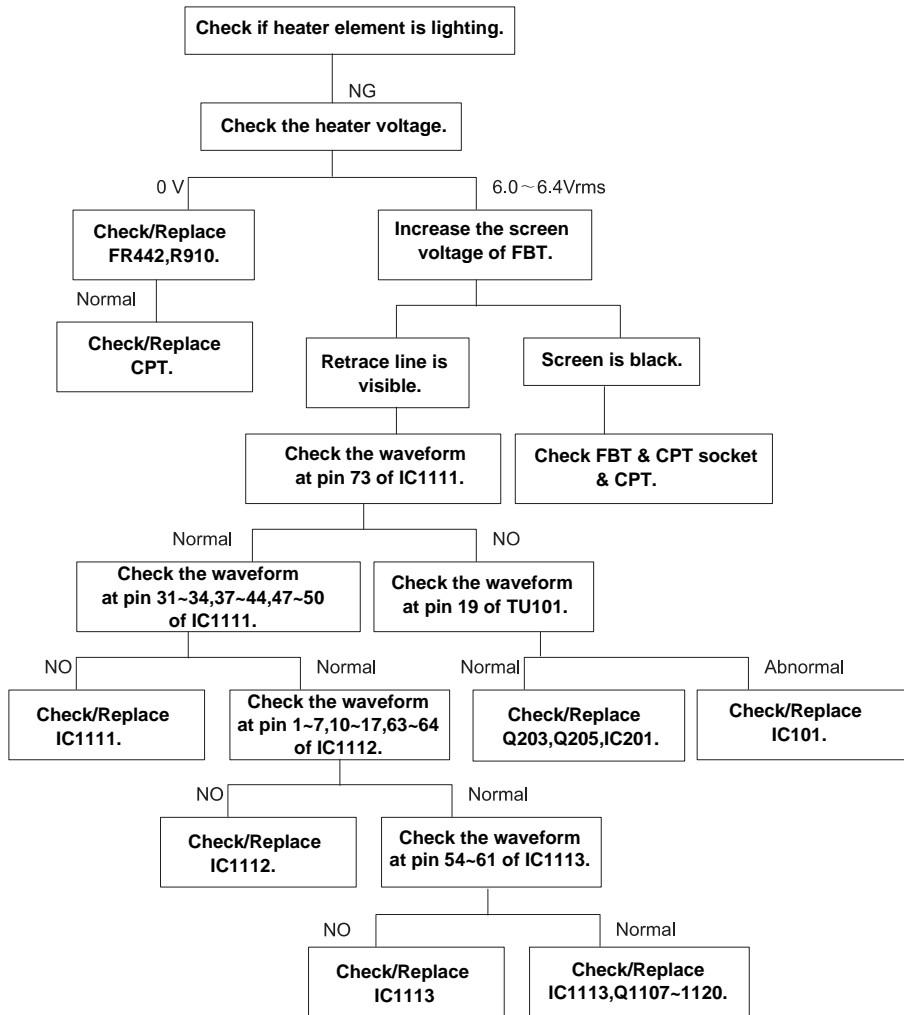
## NO POWER ON BUT SMPS WORKING



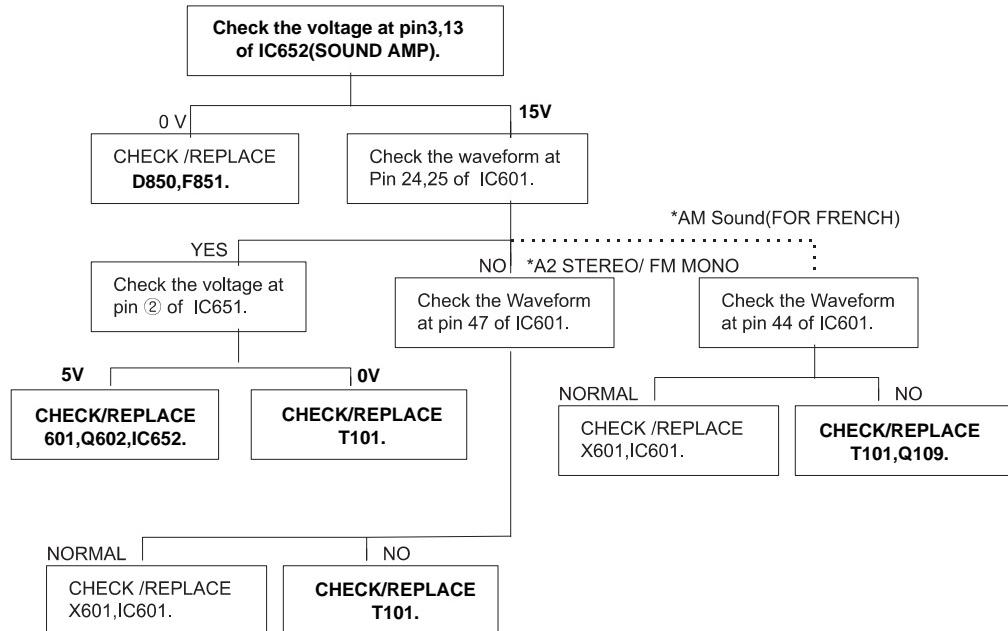
## NO POWER (NOT WORKING SMPS)



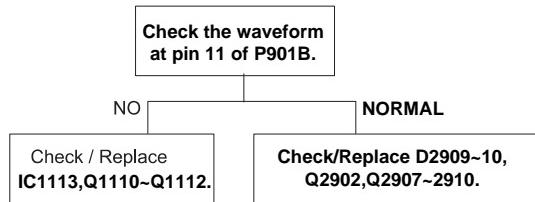
## NO RASTER & PICTURE ( H-OUT OK)



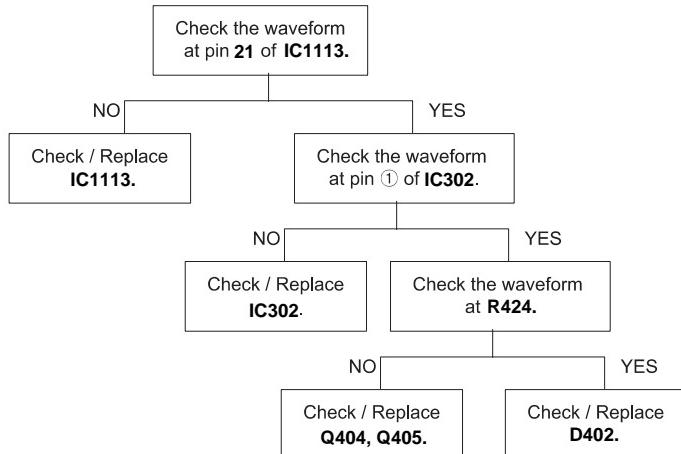
## NO SOUND(PICTURE OK)



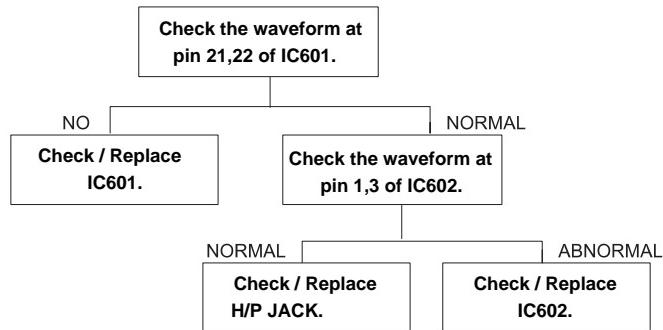
## VM DON T WORKING



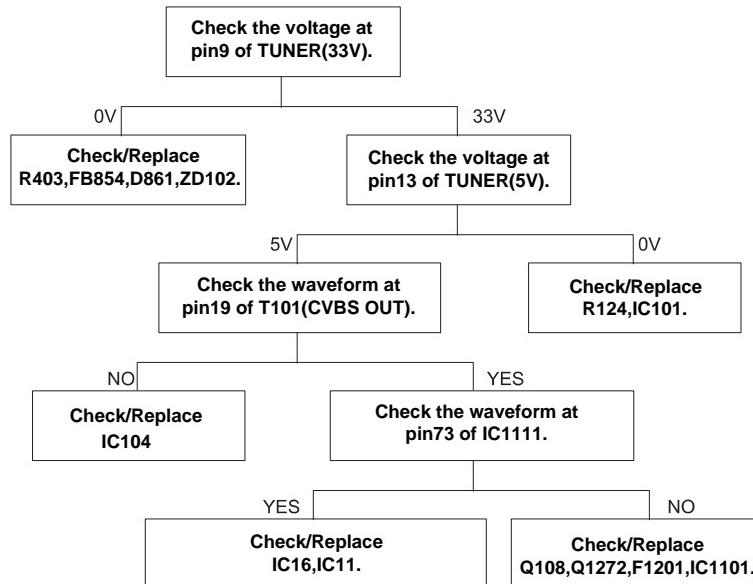
## PIN CUSHION DISTORTION



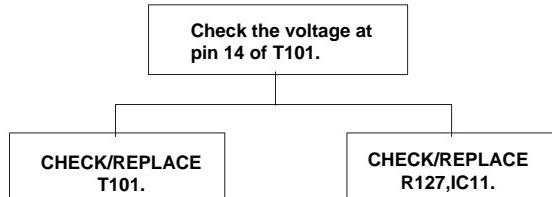
**NO SOUND FROM H/P jack(OPTION)  
(but Main Sound OK)**



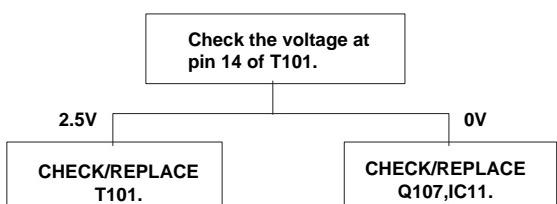
**DON'T CATCH CHANNEL(MAIN)**



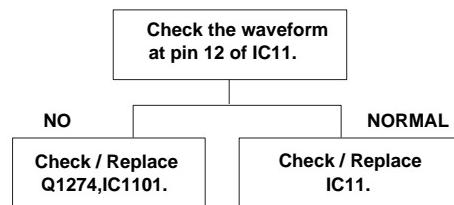
**DON T CATCH NTSC-M (OPTION)**



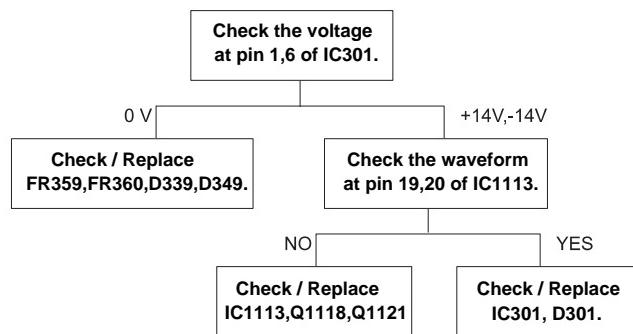
**DON T CATCH SECAM-L (OPTION)**



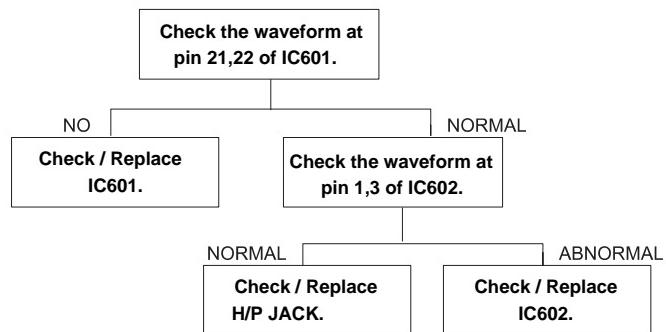
## NO TELETEXT



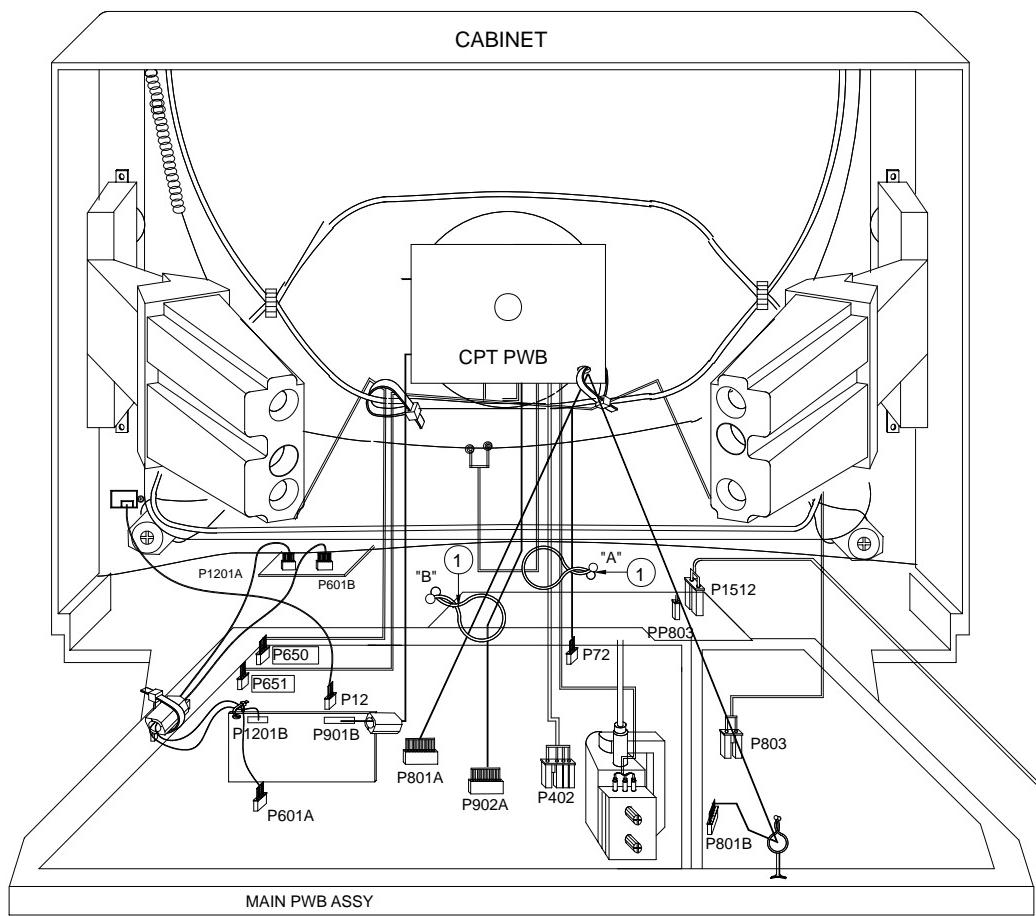
## NO VERTICAL DEFLECTION



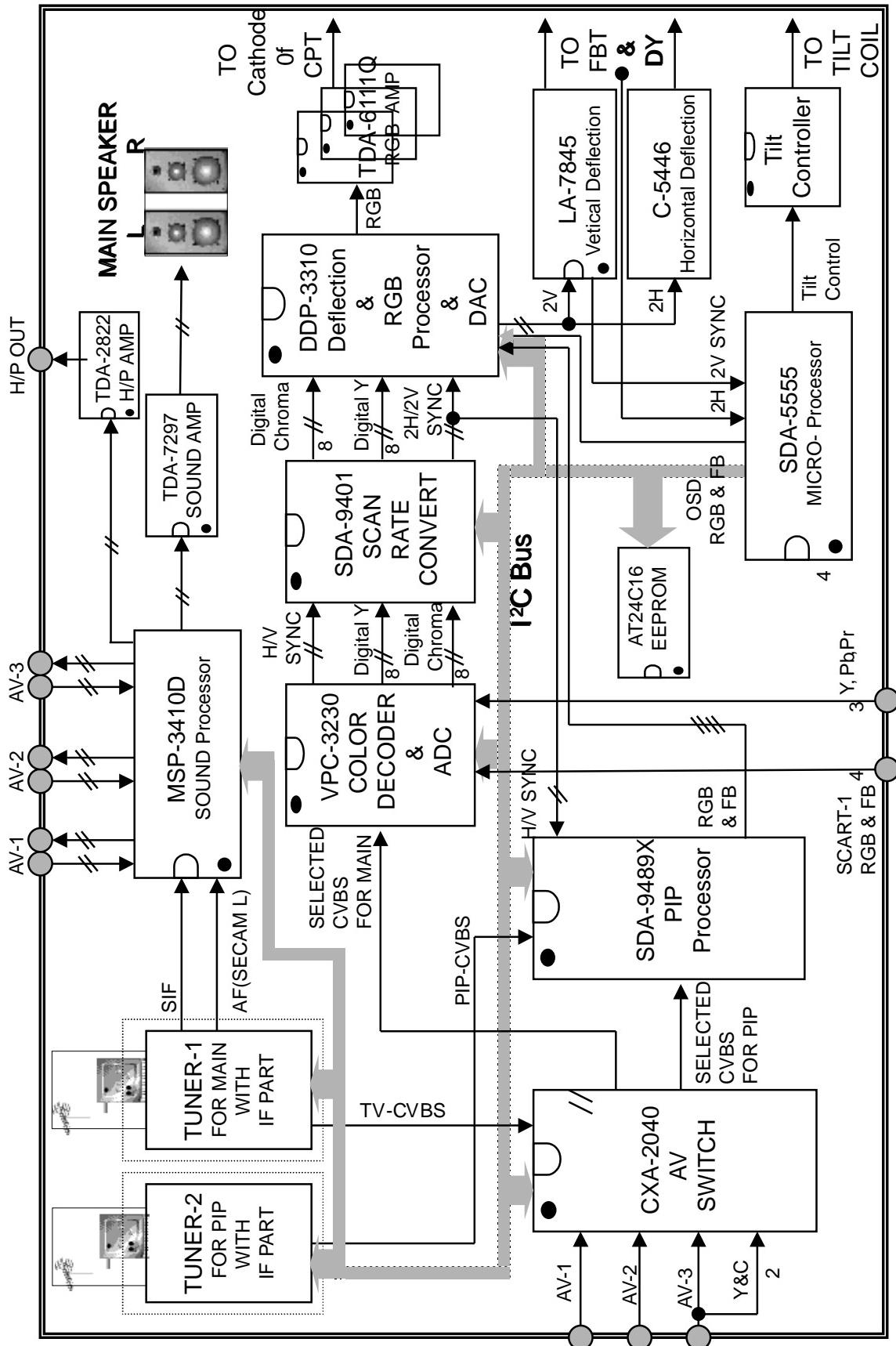
## NO SOUND FROM H/P jack(OPTION) (but Main Sound OK)



## WIRING DIAGRAM

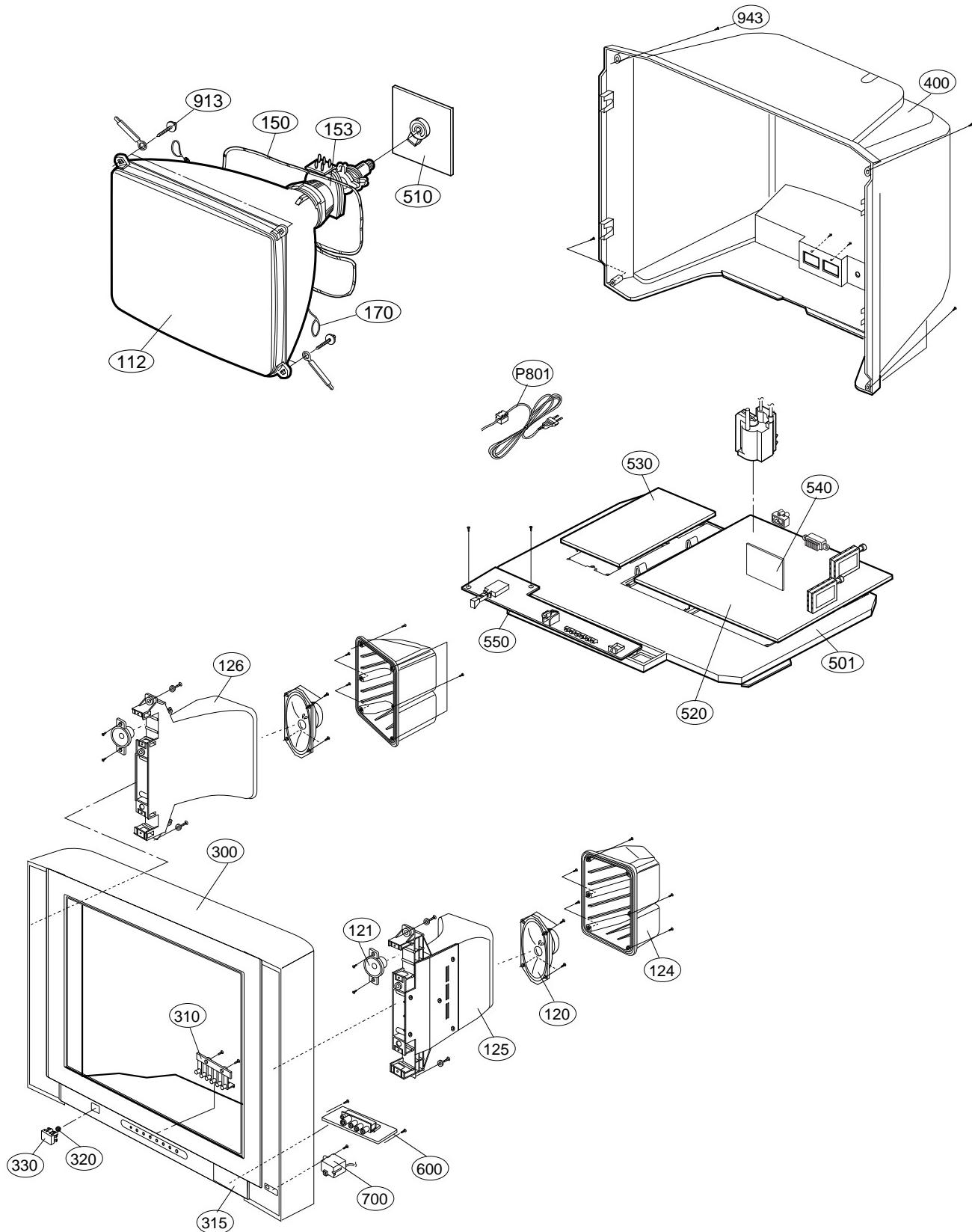


## BLOCK DIAGRAM



# **MEMO**

## EXPLODED VIEW



The components identified by mark  $\Delta$  is critical for safety.  
Replace only with part number specified.

## EXPLODED VIEW PARTS LIST

LOCA. NO	PART NO	DESCRIPTIONS
$\Delta$ 112	6341V29005A	CPT ASSY,2426GF239AT 100HZ DY
120	120-D38C	SPEAKER,MID-RANGE 8 OHM 15/25W
	6400VA0035A	SPEAKER,F305C-6169-D38C K.TONE 8 OHM
121	6400VG0002A	SPEAKER,TWEETER T0520101 8 OHM
124	3550V00068A	COVER,DOME PS
125	4810V00165A	BRACKET,DOME(R) PS
126	4810V00165B	BRACKET,DOME(L) PS
$\Delta$ 150	6140VC2005F	COIL,DEGAUSSING 29 FLAT ASSY(W) SELLA
$\Delta$ 153	6150Z-1340F	DY,DC29SLFL2
$\Delta$ 170	170-844K	CPT EARTH,29" 98T 4LUG
300	3091V00316B	CABINET ASSY
	3091V00316F	CABINET ASSY (SILVER)
310	5020V00480A	BUTTON,CONTROL 6KEY
315	3580V00058B	DOOR,FRONT
320	320-062E	SPRING,KNOB
330	5020V00479A	BUTTON,POWER
400	3809V00234C	BACK COVER ASSY
	3809V00234H	BACK COVER ASSY (SILVER)
501	4810V00379D	BRACKET,MAIN
503	3500V00022C	BOARD,A/V(2SCART)
510	6871VSM889A	PWB ASSY,LG29 CPT,SET
520	6871VMM759A	PWB ASSY,MAIN(017A) RE29FA31P,SET
	6871VMM759M	PWB ASSY,MAIN(017A) RE29FA33PX
	6871VMM812B	PWB ASSY,MAIN(017A) RL29FA33PX
	6871VMM812X	PWB ASSY,MAIN(017A) RE29FA33X
	6871VMM812W	PWB ASSY,MAIN(017A) RL29FA33X
530	6871VPM063A	PWB ASSY,SMPS (017A) EU,W/STBY,LG29,SET
	6871VPM063J	PWB ASSY,SMPS (017A) EU,W/0 STBY,LG29,SET
	6871VPM072A	PWB ASSY,SMPS (017A) EU,W/0 STBY,LG29 CKD
	6871VPM072B	PWB ASSY,SMPS (017A) EU,W/0 STBY,LG29,CKD
540	6871VSM913A	PWB ASSY,(017A) 100HZ,EU,W/PIP
	6871VSM913B	PWB ASSY,(017A) EU,W/O PIP
550	6871VSM866A	PWB ASSY,(017A)CTRL-FA30,SET
600	6871VSM922A	PWB ASSY,(017A) SIDE,FA30,SET
700	0IGL120104A	IC,CDS SENSOR MODULE(P1201-04)
913	332-229A	SCREW ASSY,HEXAGON HEAD SPECIAL
943	1PTF0403116	SCREW,TAP TITE(P) D4.0 L16.0 MSWR3/FZB
$\Delta$ P801	174-322D	CORD,POWER W/FILTER L=300(179B)VDE

The components identified by mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

## REPLACEMENT PARTS LIST

LOCA. NO	PART NO	DESCRIPTION	LOCA. NO	PART NO	DESCRIPTION
<b>IC</b>					
IC11	0ICTMIH009A	IC,SD5555-XXXA ,LG8013-32A	D414	0DD100009AE	DIODE,RECTIFIER RU1A V(1) TP
IC12	0IFA754207A	IC,KA75420ZTA(KA7542ZTA) 3P,TO-92	D425	0DS113379BA	DIODE,SWITCHING 1SS133 T-72 TP ROHM
IC13	0IFA752700A	IC,KA75270Z 3 TP RE-SET IC MC-007	D802	0DD060009AC	DIODE,TVR06J 0.6A/600V 250NS TP G.I
IC14	0IMCRNS005A	IC,LM1117T-3.3 NATIONAL	D803	0DD100009AM	DIODE,RECTIFIER EU1ZV(1) TP
IC15	0ISG111725B	IC,LD1117V25 3 SIP ST REGULATOR M	D804	0DD414809ED	DIODE,1N4148 TA
IC16	0IAL241600B	IC,AT24C16-10PC 8D EEPROM 16K	D850	0ISK100300A	IC,SLA1003 SIP12 BK DIODE MODULE(
IC17	0IKE780800J	IC,KIA7808API 3 ST REGULATOR .	D851	0DD060009AC	DIODE,TVR06J 0.6A/600V 250NS TP G.I
IC18	0IKE780500Q	IC,KIA7805API 3P TO-220 ST REGULA	D852	0DD060009AC	DIODE,TVR06J 0.6A/600V 250NS TP G.I
IC19	0IMCRNS005A	IC,LM1117T-3.3 NATIONAL	D853	0DD060009AC	DIODE,TVR06J 0.6A/600V 250NS TP G.I
IC301	0ISA784500A	IC,LA7845 7SIP V/OUT(1.5A)	D854	0DD060009AC	DIODE,TVR06J 0.6A/600V 250NS TP G.I
IC302	0IKE455800E	IC,KIA4558 8DIP DUAL OP AMP	D855	0DD060009AC	DIODE,TVR06J 0.6A/600V 250NS TP G.I
IC601	0II734100J	IC,MSP3410D-C5 52P SDIP BK MULTI	D856	0DD414809ED	DIODE,1N4148 TA
"	0IMCRMN011C	IC,MSP3410G B8	D857	0DD414809ED	DIODE,1N4148 TA
IC602	0ISG282200A	IC,TDA2822M 8D DUAL AUDIO AMP(1W)	D858	0DD420000BB	DIODE,D4L20U SHINDENGEN
IC650	0IFA754207A	IC,KA75420ZTA(KA7542ZTA) 3P,TO-92	D861	0DD100009AU	DIODE,RECTIFIER EU1AV(1) TP
IC652	0ISG729700A	IC,TDA7297 15P,SIP BK 2CH 15W DUA	D864	0DD414809ED	DIODE,1N4148 TA
$\Delta$ IC801	0IMCRSK001A	IC,STR-F6456R SANKEN 5PIN(LF1352)	D865	0DD414809ED	DIODE,1N4148 TA
$\Delta$ IC802	0ILI817000G	IC,LTV817M-VB 4P,DIP BK PHOTO COU	D900	0DR060009AA	DIODE,RECTIFIER TVR06J TP
$\Delta$ IC803	0ILI817000G	IC,LTV817M-VB 4P,DIP BK PHOTO COU	D903	0DR060009AA	DIODE,RECTIFIER TVR06J TP
IC851	0ISS278050A	IC,KA278R05 4P,TO-220F BK LOW DRO	D909	0DR060009AA	DIODE,RECTIFIER TVR06J TP
IC853	0ISS278120A	IC,KA278R12 4P,TO-220F BK LOW DRO	D910	0DD400509AA	DIODE,RECTIFIER 1N4005 GP
IC855	0ISS278050A	IC,KA278R05 4P,TO-220F BK LOW DRO	D1100	0DD414809ED	DIODE,1N4148 TA
IC856	0ISK130000A	IC,SE130N 3P 130V ERROR AMP - - -	D1101	0DD414809ED	DIODE,1N4148 TA
IC901	0IPH611190A	IC,TDA6111Q 9SIP RGB AMP	D1102	0DD414809ED	DIODE,1N4148 TA
IC902	0IPH611190A	IC,TDA6111Q 9SIP RGB AMP	D2901	0DD414809ED	DIODE,1N4148 TA
IC903	0IPH611190A	IC,TDA6111Q 9SIP RGB AMP	D2902	0DD414809ED	DIODE,1N4148 TA
IC1101	0ISO204000A	IC,CXA2040AQ 32P,QFP BK IIC BUS V	D2903	0DD414809ED	DIODE,1N4148 TA
IC1102	0ISM948900A	IC,SDA9489 28PIN SOP TP PIP	D2906	0DD414809ED	DIODE,1N4148 TA
IC1103	0IKE780800B	IC,KIA78L08BP(TA) TO-92 8V,150MA	D2907	0DD414809ED	DIODE,1N4148 TA
IC1104	0IKE780900H	IC,KIA78L09BP(AT) 3P 9V,150MA	D2909	0DD150009CA	DIODE,RECTIFIER RGP15J,TP(52MM),GI
IC1111	0II7323000D	IC,VPC3230D QA B4 80P QFP TRAY SO	D2910	0DD150009CA	DIODE,RECTIFIER RGP15J,TP(52MM),GI
IC1112	0IMCRIH001A	IC,SDA9401 INFINEON 64P QFP TRAY	D2911	0DD414809ED	DIODE,1N4148 TA
IC1113	0IMCRMN008A	IC,DDP3310B-PT-F6 MICRONAS 68 QFP	DB814	0DRGS00011A	DIODE,RECTIFIERS GSIB660
Q11	0IFA270000A	IC,2N7000TA TO-92, 3P TP LEVEL SH	LD1502	162-002B	DIODE LED ASSY
Q12	0IFA270000A	IC,2N7000TA TO-92, 3P TP LEVEL SH	ZD11	0DZ680009AN	DIODE,ZENER GDZJ6.8B TP GRANDE D034 0.5W
Q13	0IFA270000A	IC,2N7000TA TO-92, 3P TP LEVEL SH	ZD12	0DZ910009BD	DIODE,ZENER GDZJ9.1B TP GRANDE D034 0.5W
Q14	0IFA270000A	IC,2N7000TA TO-92, 3P TP LEVEL SH	ZD13	0DZ680009AN	DIODE,ZENER GDZJ6.8B
<b>DIODE</b>					
D11	0DD414809ED	DIODE,1N4148 TA	ZD101	0DZ330009BA	DIODE,ZENER HZT33(TP) HITACHI
D12	0DD414809ED	DIODE,1N4148 TA	ZD102	0DZ330009BA	DIODE,ZENER HZT33(TP) HITACHI
D150	0DD414809ED	DIODE,1N4148 TA	ZD105	0DZ910009AJ	DIODE,ZENER MTZJ9.1B TP ROHM-K
D151	0DD414809ED	DIODE,1N4148 TA	ZD403	0DZ510009BF	DIODE,ZENER GDZ5.1B TP GRADE
D301	0DD200009AF	DIODE,RECTIFIER RU2M V(1) TP SANKEN	ZD650	0DZ620009BB	DIODE,ZENER MTZJ6.2B TP ROHM-K DO34 0.5W
D339	0DD200009AF	DIODE,RECTIFIER RU2M V(1) TP SANKEN	ZD901	0DZ180009BE	DIODE,ZENER GDZJ18B TP GRANDE DO34 0.5W
D349	0DD200009AF	DIODE,RECTIFIER RU2M V(1) TP SANKEN	ZD1201	0DZ121109AA	DIODE,ZENER DTZ12BTT11(CHIP) TP ROHM
D351	0DD414809ED	DIODE,1N4148 TA	<b>TRANSISTOR</b>		
D402	0DD011150AA	DIODE,ESC011M-15	Q15	0TR945009AA	TR,KSC945C-Y TP SAMSUNG
D410	0DD150009CA	DIODE,RECTIFIER RGP15J,TP(52MM)	Q16	0TR945009AA	TR,KSC945C-Y TP SAMSUNG
D412	0DD100009AU	DIODE,RECTIFIER EU1AV(1) TP	Q18	0TR945009AA	TR,KSC945C-Y TP SAMSUNG
D413	0DD150009CC	DIODE,RECTIFIER RGP15G,TP(52MM)	Q101	0TR945009AA	TR,KSC945C-Y TP SAMSUNG
			Q102	0TR945009AA	TR,KSC945C-Y TP SAMSUNG
			Q103	0TR733009AA	TR,KSC733C-Y TP SAMSUNG
			Q104	0TR127009AA	TR,KTA1270-TP-Y (KTA562TM)KEC

For Capacitor & Resistors,  
the characters at 2nd and 3rd  
digit in the P/No. means as  
follows;

CC, CX, CK, CN : Ceramic	RD : Carbon Film
CO : Polyester	RS : Metal Oxide Film
CE : Electrolytic	RN : Metal Film
	RF : Fusible

The components identified by mark <sup>▲</sup> are  
critical for safety.  
Replace only with part number specified.

LOCA. NO	PART NO	DESCRIPTION
Q105	OTR945009AA	TR,KSC945C-Y TP SAMSUNG
Q107	OTR945009AA	TR,KSC945C-Y TP SAMSUNG
Q108	OTR945009AA	TR,KSC945C-Y TP SAMSUNG
Q109	OTR945009AA	TR,KSC945C-Y TP SAMSUNG
Q150	OTR945009AA	TR,KSC945C-Y TP SAMSUNG
Q151	OTR733009AA	TR,KSA733C-Y TP SAMSUNG TO-92
Q152	OTR733009AA	TR,KSA733C-Y TP SAMSUNG TO-92
Q153	OTR945009AA	TR,KSC945C-Y TP SAMSUNG
Q154	OTR945009AA	TR,KSC945C-Y TP SAMSUNG
Q155	OTR733009AA	TR,KSA733C-Y TP SAMSUNG TO-92
Q156	OTR733009AA	TR,KSA733C-Y TP SAMSUNG TO-92
Q157	OTR945009AA	TR,KSC945C-Y TP SAMSUNG
Q203	OTR733009AA	TR,KSA733C-Y TP SAMSUNG TO-92
Q308	OTR945009AA	TR,KSC945C-Y TP SAMSUNG
Q401	OTF200000AA	TR,IRFIBC20G BK I.R 600V --
Q402	OTR544600AA	TR,2SC5446(AS) BK TOSHIBA TO3P 17
Q404	OTR127509AC	TR,KTA1275-Y TP(KTA1013),KEC
Q405	OTR205900AB	TR,KTD2059-Y TO-220IS KEC
Q601	OTR733009AA	TR,KSA733C-Y TP SAMSUNG TO-92
Q602	OTR733009AA	TR,KSA733C-Y TP SAMSUNG TO-92
Q651	OTR945009AA	TR,KSC945C-Y TP SAMSUNG
Q851	OTR945009AA	TR,KSC945C-Y TP SAMSUNG
Q852	OTR322709AA	TR,KTC3227-Y,TP(KTC1627A),KEC
Q853	OTR945009AA	TR,KSC945C-Y TP SAMSUNG
Q854	OTR322709AA	TR,KTC3227-Y,TP(KTC1627A),KEC
Q855	OTR421009AB	TR,BF421
Q856	OTR945009AA	TR,KSC945C-Y TP SAMSUNG
Q857	OTR320209AA	TR,KTC3202-TP-Y (KTC1959)KEC
Q871	OTR945009AA	TR,KSC945C-Y TP SAMSUNG
Q900	OTR127109AA	TR,KTA1271-TP-Y (KTA950)KEC
Q1107	OTR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q1108	OTR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q1109	OTR150400BA	TR,CHIP 2SA1504S(ASY) KEC
Q1110	OTR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q1111	OTR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q1112	OTR150400BA	TR,CHIP 2SA1504S(ASY) KEC
Q1113	OTR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q1114	OTR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q1115	OTR150400BA	TR,CHIP 2SA1504S(ASY) KEC
Q1116	OTR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q1117	OTR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q1118	OTR150400BA	TR,CHIP 2SA1504S(ASY) KEC
Q1119	OTR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q1120	OTR150400BA	TR,CHIP 2SA1504S(ASY) KEC
Q1121	OTR150400BA	TR,CHIP 2SA1504S(ASY) KEC
Q1270	OTR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q1271	OTR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q1272	OTR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q1273	OTR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q1274	OTR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q1275	OTR387500AA	TR,CHIP 2SC3875S(ALY) KEC
Q1501	OTR945009AA	TR,KSC945C-Y TP SAMSUNG

LOCA. NO	PART NO	DESCRIPTION
Q2902	OTR319809AA	TR,KTC3198-TP-Y (KTC1815)KEC
Q2907	OTR126609AA	TR,KTA1266-TP-Y (KTA1015) KEC
Q2908	OTR319809AA	TR,KTC3198-TP-Y (KTC1815)KEC
Q2909	OTR165900AC	TR,KTA1659A-Y TO-220IS BK KEC --
Q2910	OTR437000BA	TR,KTC4370A-Y TO-220IS KEC
<b>CAPACITOR</b>		
C10	a0CE106DF618	10UF STD 16V M FL TP5
C11	0CE106DF618	10UF STD 16V M FL TP5
C12	0CQ1041N509	0.1U 100V K POLY
C13	0CE476DF618	47UF STD 16V M FL TP5
C14	0CN1030F679	10000P 16V M Y TA52
C15	0CE106DF618	10UF STD 16V M FL TP5
C16	0CN1030F679	10000P 16V M Y TA52
C17	0CN1010K519	100P 50V K B TA52
C19	0CN1030F679	10000P 16V M Y TA52
C20	0CE476DD618	47UF STD 10V 20% FL TP 5
C21	0CE106DF618	10UF STD 16V M FL TP5
C22	0CN1030F679	10000P 16V M Y TA52
C23	0CN1010K519	100P 50V K B TA52
C24	0CE106DF618	10UF STD 16V M FL TP5
C25	0CN1020K519	1000P 50V K B TA52
C26	0CX3300K409	33P 50V J SL TA52
C27	0CX3300K409	33P 50V J SL TA52
C29	0CN1030F679	10000P 16V M Y TA52
C30	0CE106DF618	10UF STD 16V M FL TP5
C31	0CE106DF618	10UF STD 16V M FL TP5
C32	0CN1030F679	10000P 16V M Y TA52
C33	0CN1030F679	10000P 16V M Y TA52
C36	0CE476DD618	47UF STD 10V 20% FL TP 5
C37	0CN1030F679	10000P 16V M Y TA52
C38	0CE106DF618	10UF STD 16V M FL TP5
C41	0CN1030F679	10000P 16V M Y TA52
C42	0CN1030F679	10000P 16V M Y TA52
C80	0CE227DF618	220UF STD 16V M FL TP5
C81	0CE227DF618	220UF STD 16V M FL TP5
C82	0CE227DD618	220UF STD 10V M FL TP5
C83	0CE227DD618	220UF STD 10V M FL TP5
C102	0CE106DK618	10UF STD 50V M FL TP5
C103	0CN1030F679	10000P 16V M Y TA52
C104	0CE476DD618	47UF STD 10V 20% FL TP 5
C108	0CN1030F679	10000P 16V M Y TA52
C109	0CE105DK618	1UF STD 50V M FL TP5
C111	0CE017DD618	100UF STD 10V M
C114	0CE476DD618	47UF STD 10V 20% FL TP 5
C115	0CN1010K519	100P 50V K B TA52
C117	0CE476DD618	47UF STD 10V 20% FL TP 5
C121	0CE474DK618	0.4700UF STD 50V M FL TP5
C122	0CE017DD618	100UF STD 10V M
C123	0CN1030F679	10000P 16V M Y TA52
C124	0CE106DF618	10UF STD 16V M FL TP5
C127	0CE476DD618	47UF STD 10V 20% FL TP 5

The components identified by mark <sup>A</sup> are critical for safety.  
Replace only with part number specified.

For Capacitor & Resistors, the characters at 2nd and 3rd digit in the P/No. means as follows;	CC, CX, CK, CN : Ceramic CQ : Polyester CE : Electrolytic	RD : Carbon Film RS : Metal Oxide Film RN : Metal Film RF : Fusible
--	---	--

LOCA. NO	PART NO	DESCRIPTION	LOCA. NO	PART NO	DESCRIPTION
C129	OCE106DK618	10UF STD 50V M FL TP5	C409	181-010G	PP 400V 0.01UF K
C150	OCN1010K519	100P 50V K B TA52	C410	181-010G	PP 400V 0.01UF K
C151	OCN2210K519	220P 50V K B TA52	C411	OCE106DR618	10UF STD 250V M FL TP5
C152	OCE476DF618	47UF STD 16V M FL TP5	C412	181-013M	MPP 400V 0.22UF J
C153	OCN1040K949	0.1M 50V Z F TA52	C413	181-013U	MPP 630V 0.1UF J
C154	OCE105DK618	1UF STD 50V M FL TP5	C416	OCE107DK618	100UF STD 50V M FL TP5
C203	OCN1010K519	100P 50V K B TA52	C417	OCK1030K945	0.01UF 50V Z F TR
C204	OCN1010K519	100P 50V K B TA52	C418	OCN4710K519	470P 50V K B TA52
C206	OCE227DD618	220UF STD 10V M FL TP5	C419	OCN1030F679	10000P 16V M Y TA52
C207	OCE226DF618	22UF STD 16V M FL TP5	C420	OCN1010K519	100P 50V K B TA52
C208	OCE226DF618	22UF STD 16V M FL TP5	C422	OCE685BK652	6.8UF KME TYPE 50V 20% FM7.5 B
C212	OCN4710K519	470P 50V K B TA52	C423	OCE685BK652	6.8UF KME TYPE 50V 20% FM7.5 B
C213	OCN4710K519	470P 50V K B TA52	C426	0CQ6831N509	0.068U 100V K POLY TP
C214	OCN2710K519	270P 50V K B TA52	C430	OCK22202515	2200PF 2KV K B TR
C215	OCN1010K519	100P 50V K B TA52	C437	OCK56101515	560P 1KV K B TS
C216	OCN1010K519	100P 50V K B TA52	C438	OCE107DK618	100UF STD 50V M FL TP5
C218	OCE227DD618	220UF STD 10V M FL TP5	C439	0CQ1021N519	0.001U 100V K POLY NI TP
C221	OCN2710K519	270P 50V K B TA52	C446	OCK56102515	560P 2KV K B TS
C225	OCN4710K519	470P 50V K B TA52	C601	OCE475DK618	4.7UF STD 50V 20% FL TP 5
C226	OCN4710K519	470P 50V K B TA52	C602	OCN3320F569	3300P 16V K X TA52
C227	OCN1010K519	100P 50V K B TA52	C603	OCN3320F569	3300P 16V K X TA52
C228	OCE226DF618	22UF STD 16V M FL TP5	C604	OCN2210K519	220P 50V K B TA52
C229	OCE226DF618	22UF STD 16V M FL TP5	C605	OCN1520F569	1500P 16V K X TA52
C232	OCN4710K519	470P 50V K B TA52	C606	OCE106DF618	10UF STD 16V M FL TP5
C233	OCN1010K519	100P 50V K B TA52	C607	OCE106DF618	10UF STD 16V M FL TP5
C234	OCN4710K519	470P 50V K B TA52	C608	181-007G	MPE ECQ-V1H334JL3(TR), 50V 0.3
C237	OCN1030F679	10000P 16V M Y TA52	C609	181-007G	MPE ECQ-V1H334JL3(TR), 50V 0.3
C238	OCN1010K519	100P 50V K B TA52	C610	OCE106DF618	10UF STD 16V M FL TP5
C239	OCN1010K519	100P 50V K B TA52	C611	OCN1030F679	10000P 16V M Y TA52
C306	OCN1030F679	10000P 16V M Y TA52	C612	OCN1030F679	10000P 16V M Y TA52
C307	OCN1030F679	10000P 16V M Y TA52	C613	OCE107DD618	100UF STD 10V M FL TP5
C308	0CQ4741N501	0.47U 100V K POLY F5	C614	OCN1030F679	10000P 16V M Y TA52
C310	OCE107DJ618	100UF STD 35V M FL TP5	C615	0CX5600K409	56P 50V J SL TA52
C312	OCN2710K519	270P 50V K B TA52	C616	181-007G	MPE ECQ-V1H334JL3(TR), 50V 0.3
C313	0CQ3331N509	0.033U 100V K POLY TP	C617	181-007G	MPE ECQ-V1H334JL3(TR), 50V 0.3
C316	OCE228DJ650	2200UF STD 35V M FM7.5 BULK	C618	181-007G	MPE ECQ-V1H334JL3(TR), 50V 0.3
C324	0CQ3331N509	0.033U 100V K POLY TP	C619	181-007G	MPE ECQ-V1H334JL3(TR), 50V 0.3
C332	0CQ1021N519	0.001U 100V K POLY NI TP	C620	181-442Z	PE,ECQ-B1H104KF3(TR)
C333	OCN2710K519	270P 50V K B TA52	C621	OCN1030F679	10000P 16V M Y TA52
C338	OCE228DH610	2200UF STD 25V M FL BULK	C622	OCN1020K519	1000P 50V K B TA52
C339	OCK56101515	560P 1KV K B TS	C623	OCE106DF618	10UF STD 16V M FL TP5
C340	181-014W	MPP 2KV 0.0033UF J	C624	0CX5600K409	56P 50V J SL TA52
C348	OCE3386H610	3300UF SMS,SG 25V 20% FL BULK	C625	0CX5600K409	56P 50V J SL TA52
C350	OCK56101515	560P 1KV K B TS	C626	0CX5600K409	56P 50V J SL TA52
C401	181-091D	DE0905-979 R 102K 1KV TP5	C627	OCN4710K519	470P 50V K B TA52
C402	181-091D	DE0905-979 R 102K 1KV TP5	C628	0CX0100K619	1P 50V M C TA52
C403	OCK22101515	220P 1KV K B TP5	C629	0CX0100K619	1P 50V M C TA52
C404	181-010A	PP 400V 0.022UF J	C630	OCN1030F679	10000P 16V M Y TA52
C405	OCB10212474	1000PF D 2KV J M/PP NI FM20	C631	OCE476DD618	47UF STD 10V 20% FL TP 5
C406	OCK10201515	1000P 1KV K B TS	C632	OCE476DF618	47UF STD 16V M FL TP5
C407	181-014C	MPP 1600V 0.0056UF J	C633	OCN2720F569	2700P 16V K X TA52
C408	181-014B	MPP 1600V 0.0047UF J	C634	OCN2720F569	2700P 16V K X TA52

For Capacitor & Resistors, the characters at 2nd and 3rd digit in the P/No. means as follows;	CC, CX, CK, CN : Ceramic CO : Polyester CE : Electrolytic	RD : Carbon Film RS : Metal Oxide Film RN : Metal Film RF : Fusible
--	---	--

The components identified by mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

LOCA. NO	PART NO	DESCRIPTION	LOCA. NO	PART NO	DESCRIPTION
C635	OCN2720F569	2700P 16V K X TA52	C867	OCE107DN618	100UF STD 100V M FL TP5
C636	OCN2720F569	2700P 16V K X TA52	C870	181-091D	DE0905-979 R 102K 1KV TP5
C637	OCN1030F679	10000P 16V M Y TA52	C871	OCE227DP650	220UF STD 160V M FM7.5 BULK
C638	OCN1030F679	10000P 16V M Y TA52	C872	OCE107CP618	100U SHL 160V M FL TP5
C639	181-442Z	PE,ECQ-B1H104KF3(TR)	C873	0CQ1041N509	0.1U 100V K POLY TP
C640	181-442Z	PE,ECQ-B1H104KF3(TR)	C900	OCE475BR618	4.7UF KME TYPE 250V 20% FL TP
C641	OCN1020K519	1000P 50V K B TA52	C901	OCE475BR618	4.7UF KME TYPE 250V 20% FL TP
C642	OCN1020K519	1000P 50V K B TA52	C902	OCE475DR618	4.7UF STD 250V 20% FL TP 5
C643	OCE107DF618	100UF STD 16V M FL TP5	C903	0CC0500K115	5P 50V D NP0 TS
C644	OCE107DF618	100UF STD 16V M FL TP5	C904	OCE475BR618	4.7UF KME TYPE 250V 20% FL TP
C645	OCE107DF618	100UF STD 16V M FL TP5	C905	0CK5610W515	560P 500V K B TS
C646	OCE107DF618	100UF STD 16V M FL TP5	C906	OCN1040K949	0.1M 50V Z F TA52
C648	OCN1030F679	10000P 16V M Y TA52	C907	OCN1040K949	0.1M 50V Z F TA52
C649	OCN1040K949	0.1M 50V Z F TA52	C910	OCE225DK618	2.2UF STD 50V 20% FL TP 5
C650	OCE108DH618	1000UF STD 25V M FL TP5	C911	OCN1040K949	0.1M 50V Z F TA52
C651	OCN2230H949	22000P 25V Z FTA52	C912	OCN1040K949	0.1M 50V Z F TA52
C652	0CQ2242K439	0.2200UF S 50V J M/PE NI TP	C914	OCE228DF618	2200UF STD 16V M FL TP5
C653	OCN3320F569	3300P 16V K X TA52	C915	0CK5610W515	560P 500V K B TS
C654	OCN1030F679	10000P 16V M Y TA52	C916	181-033T	2KV B 222K TP7.5
C655	0CQ2242K439	0.2200UF S 50V J M/PE NI TP	C917	OCN1040K949	0.1M 50V Z F TA52
C656	OCN3320F569	3300P 16V K X TA52	C918	0CC0500K115	5P 50V D NP0 TS
C657	OCE476DD618	47UF STD 10V 20% FL TP5	C919	0CK5610W515	560P 500V K B TS
C660	OCN1220F569	1200P 16V K X TA52	C920	0CC5600K415	56P 50V J NP0 TP
C661	OCN1220F569	1200P 16V K X TA52	C925	OCN1040K949	0.1M 50V Z F TA52
C680	OCN1040K949	0.1M 50V Z F TA52	C927	0CC4700K415	47P 50V J NP0 TP
C803	181-091G	DE0907-486 R 471K 2KV TP7.5	C928	0CC3300K415	33P 50V J NP0 TP
C806	181-014Y	MPP 1.6KV 0.0015UF J	C1002	OCN4710K519	470P 50V K B TA52
C807	181-091C	DE0705-979 R 471K 1KV TP5	C1003	OCN4710K519	470P 50V K B TA52
C808	OCE107BJ618	100UF KME 35V M FL TP5	C1005	OCN2210K519	220P 50V K B TA52
C809	0CK1020K515	1000P 50V K B TS	C1006	OCN2210K519	220P 50V K B TA52
C811	181-120K	2200PF 4KV M E FMTW LEAD 4.5	C1007	OCN4710K519	470P 50V K B TA52
C812	0CK1020W515	1000P 500V K B TS	C1008	OCN4710K519	470P 50V K B TA52
$\Delta$ C813	181-091D	DE0905-979 R 102K 1KV TP5	C1100	0CK224DF56A	220000PF 2012 16V 10% R/TP X7R
C814	0CQZVBK002A	A.C 275V 0.1UF M (S=15)	C1101	0CK224DF56A	220000PF 2012 16V 10% R/TP X7R
C815	181-091C	DE0705-979 R 471K 1KV TP5	C1102	0CK224DF56A	220000PF 2012 16V 10% R/TP X7R
C816	181-091D	DE0905-979 R 102K 1KV TP5	C1103	0CK224DF56A	220000PF 2012 16V 10% R/TP X7R
C821	181-001Y	330UF 0 450V M VNSN BULK	C1104	0CK224DF56A	220000PF 2012 16V 10% R/TP X7R
C824	0CQZVBK002C	A.C 275V 0.22UF K (S=22.5)	C1105	0CK224DF56A	220000PF 2012 16V 10% R/TP X7R
C851	0CK1020W515	1000P 500V K B TS	C1109	0CK224DF56A	220000PF 2012 16V 10% R/TP X7R
$\Delta$ C853	OCE477DF618	470UF STD 16V 20% FL TP 5	C1116	OCE474CK636	0.47UF SHL,SD 50V M FM5 BP(D)
C854	OCE107DF618	100UF STD 16V M FL TP5	C1119	OCE474CK636	0.47UF SHL,SD 50V M FM5 BP(D)
C855	OCE107DD618	100UF STD 10V M FL TP5	C1120	OCE474CK636	0.47UF SHL,SD 50V M FM5 BP(D)
C856	181-091C	DE0705-979 R 471K 1KV TP5	C1121	OCE476DF618	47UF STD 16V M FL TP5
C857	OCE228DF618	2200UF STD 16V M FL TP5	C1127	OCE106DF618	10UF STD 16V M FL TP5
C858	OCE477DF618	470UF STD 16V 20% FL TP 5	C1131	0CQ1021N519	0.001U 100V K POLY NI TP
C859	181-091C	DE0705-979 R 471K 1KV TP5	C1134	0CK224DF56A	220000PF 2012 16V 10% R/TP X7R
C860	OCE477DF618	470UF STD 16V 20% FL TP 5	C1135	OCE476DF618	47UF STD 16V M FL TP5
C861	OCE228DF618	2200UF STD 16V M FL TP5	C1138	OCE107DF618	100UF STD 16V M FL TP5
C862	OCE475CK636	4.7UF SHL,SD 50V 20% FM5 BP(D)	C1140	OCE336DF618	33UF STD 16V M FL TP5
C863	181-091C	DE0705-979 R 471K 1KV TP5	C1144	OCE106DF618	10UF STD 16V M FL TP5
C864	OCE108DH618	1000UF STD 25V M FL TP5	C1146	OCE106DF618	10UF STD 16V M FL TP5
C866	0CK4710K515	470PF 50V K B TR	C1147	OCE227DF618	220UF STD 16V M FL TP5

The components identified by mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

For Capacitor & Resistors, the characters at 2nd and 3rd digit in the P/No. means as follows;	CC, CX, CK, CN : Ceramic CQ : Polyester CE : Electrolytic	RD : Carbon Film RS : Metal Oxide Film RN : Metal Film RF : Fusible
--	---	--

LOCA. NO	PART NO	DESCRIPTION
C1159	OCE105DK618	1UF STD 50V M FL TP5
C1169	OCE105DK618	1UF STD 50V M FL TP5
C1170	OCE476DF618	47UF STD 16V M FL TP5
C1172	OCE476DF618	47UF STD 16V M FL TP5
C1181	OCE106DF618	10UF STD 16V M FL TP5
C1187	OCE476DF618	47UF STD 16V M FL TP5
C1195	OCE476DD618	47UF STD 10V 20% FL TP5
C1196	OCE227DD618	220UF STD 10V M FL TP5
C1198	OCE476DF618	47UF STD 16V M FL TP5
C1222	OCK224DF56A	220000PF 2012 16V 10% R/TP X7R
C1223	OCK224DF56A	220000PF 2012 16V 10% R/TP X7R
C1224	OCK224DF56A	220000PF 2012 16V 10% R/TP X7R
C1228	OCE476DF618	47UF STD 16V M FL TP5
C1233	OCE335DK618	3.3UF STD 50V 20% FL TP5
C1234	OCE476DD618	47UF STD 10V 20% FL TP5
C1242	OCE106DF618	10UF STD 16V M FL TP5
C1258	OCE106DF618	10UF STD 16V M FL TP5
C1270	OCK224DF56A	220000PF 2012 16V 10% R/TP X7R
C1271	OCK224DF56A	220000PF 2012 16V 10% R/TP X7R
C1272	OCK224DF56A	220000PF 2012 16V 10% R/TP X7R
C1502	OCE107DD618	100UF STD 10V M FL TP5
C1504	OCE107DD618	100UF STD 10V M FL TP5
C2903	OCE106DH618	10UF STD 25V M FL TP5
C2909	OCE106DH618	10UF STD 25V M FL TP5
C2910	OCN1010K519	100P 50V K B TA52
C2911	OCN1010K519	100P 50V K B TA52
C2912	OCK4720W510	4700P 500V K B S
C2913	OCK4720W510	4700P 500V K B S
C2914	OCE106DP618	10UF STD 160V M FL TP5
C2915	OCE107DK618	100UF STD 50V M FL TP5
C2917	OCE107DF618	100UF STD 16V M FL TP5
C2918	OCE107DF618	100UF STD 16V M FL TP5
C2919	OCE106DP618	10UF STD 160V M FL TP5
C2922	OCE106DH618	10UF STD 25V M FL TP5
C2933	OCK1010W515	100P 500V K B TS
J6553	OCN1030F679	10000P 16V M Y TA52

#### COIL & TRANSFORMER

L11	OLA0102K119	INDUCTOR,10UH K
L12	OLA0102K119	INDUCTOR,10UH K
L13	OLA0102K119	INDUCTOR,10UH K
L14	OLA0102K119	INDUCTOR,10UH K
L15	OLA0102K119	INDUCTOR,10UH K
L72	OLA0102K119	INDUCTOR,10UH K
L101	OLA0102K139	INDUCTOR,10UH K
L102	OLA0102K139	INDUCTOR,10UH K
L105	OLA1000K119	INDUCTOR,100UH K
L201	OLA0102K119	INDUCTOR,10UH K
L204	OLA0102K119	INDUCTOR,10UH K
L205	OLA0102K119	INDUCTOR,10UH K
L206	OLA0102K119	INDUCTOR,10UH K
L207	OLA0102K119	INDUCTOR,10UH K

LOCA. NO	PART NO	DESCRIPTION
L209	OLA0102K119	INDUCTOR,10UH K
L211	OLA0102K119	INDUCTOR,10UH K
L213	OLA0102K119	INDUCTOR,10UH K
L215	OLA0102K119	INDUCTOR,10UH K
L301	150-C02A	COIL,CHOKE 10UH R0814
L401	150-L02Q	COIL,LINEARITY 10UH
L402	150-C13B	COIL,CHOKE 52UH
L403	150-C13B	COIL,CHOKE 52UH
L407	150-717K	COIL,CHOKE 1.1UH
L601	OLA0102K119	INDUCTOR,10UH K
L603	OLA0102K119	INDUCTOR,10UH K
L604	OLA0102K119	INDUCTOR,10UH K
L605	OLA0102K119	INDUCTOR,10UH K
L850	6170VZ0008A	TRANSFORMER,TS4841 30500UH
L853	150-C02F	COIL,CHOKE 82UH R1217
L901	OLA0272K139	INDUCTOR,27UH K
L1000	OLA0102K119	INDUCTOR,10UH K
L1001	OLA0102K119	INDUCTOR,10UH K
L1002	OLA0472K119	INDUCTOR,47UH K
L1003	OLA0472K119	INDUCTOR,47UH K
L1004	OLA1000K119	INDUCTOR,100UH K
L1005	OLA1000K119	INDUCTOR,100UH K
L1102	OLA0102K139	INDUCTOR,10UH K
L1104	OLA0102K119	INDUCTOR,10UH K
L1107	OLA0102K139	INDUCTOR,10UH K
L1501	OLA0102K119	INDUCTOR,10UH K
$\Delta$ T401	6170VC0002A	TRANSFORMER,H-DRIVE EER-2619
$\Delta$ T402	6174V-6003E	FBT,BSC27-N2215 29"
$\Delta$ T403	151-E06A	TRANSFORMER,EER2834 0UH
$\Delta$ T802	6170VMCB01H	TRANSFORMER,SMPS EER5345 295UH
$\Delta$ T803	151-D02G	TRANSFORMER,STAND-BY EER3541 0UH

#### CONNECTOR

P11A	366-921K	CONNECTOR (CIRC),2.5MM 11P
P11B	6631V25024D	CONNECTOR ASSY,11P 250MM
P12	366-932B	CONNECTOR (CIRC),2.5MM 3P
P72	366-932B	CONNECTOR (CIRC),2.5MM 3P
P101	366-932E	CONNECTOR (CIRC),2.5MM 6P
P402	366-043K	CONNECTOR (CIRC),PLUG(4P)
P501B	366-173N	CONNECTOR (CIRC),AEPH254-D28R(14*2)
P502B	366-173G	CONNECTOR (CIRC),2.5MM 8*2P
P503B	366-173G	CONNECTOR (CIRC),2.5MM 8*2P
P601A	366-921F	CONNECTOR (CIRC),2.5MM 7P
P601B	387-A07K	CONNECTOR ASSY,7P(L=600)
P650	366-932C	CONNECTOR (CIRC),2.5MM 4P
P651	366-932B	CONNECTOR (CIRC),2.5MM 3P
P801A	366-921L	CONNECTOR (CIRC),2.5MM 12P
P801B	387-A15K	CONNECTOR ASSY,12P(L=600)
P802A	366-932D	CONNECTOR (CIRC),2.5MM 5P
P802B	387-A05A	CONNECTOR ASSY,5P (L=100)
P803A	366-009D	CONNECTOR (CIRC),2.36PAI 1P
P803B	366-009D	CONNECTOR (CIRC),2.36PAI 1P

For Capacitor & Resistors, the characters at 2nd and 3rd digit in the P/No. means as follows;	CC, CX, CK, CN : Ceramic CO : Polyester CE : Electrolytic	RD : Carbon Film RS : Metal Oxide Film RN : Metal Film RF : Fusible
--	---	--

The components identified by mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

LOCA. NO	PART NO	DESCRIPTION
P822A	366-009D	CONNECTOR (CIRC),2.36PAI 1P
P822B	366-009D	CONNECTOR (CIRC),2.36PAI 1P
P901B	366-921L	CONNECTOR (CIRC),2.5MM 12P
P901A	366-921L	CONNECTOR (CIRC),2.5MM 12P
P902A	366-921J	CONNECTOR (CIRC),2.5MM 10P
P902B	387-A10G	CONNECTOR ASSY,10P (L=400)
P905	366-009D	CONNECTOR (CIRC),2.36PAI 1P
P906	366-009D	CONNECTOR (CIRC),2.36PAI 1P
P1201B	366-921E	CONNECTOR (CIRC),2.5MM 6P
P1201A	387-B06J	CONNECTOR ASSY,6P SHIELD WIRE (L=500)
P1511	366-009D	CONNECTOR (CIRC),2.36PAI 1P
P1512B	366-009D	CONNECTOR (CIRC),2.36PAI 1P
P1512A	366-009D	CONNECTOR (CIRC),2.36PAI 1P
P1513A	366-009D	CONNECTOR (CIRC),2.36PAI 1P
P1513B	366-009D	CONNECTOR (CIRC),2.36PAI 1P
P1513	6631V23001J	CONNECTOR ASSY,2P 250MM 10MM
P2903	366-932B	CONNECTOR (CIRC),2.5MM 3P

### RESISTOR

F851	0RP0020J809	0.02 OHM 1W 20% TA52
F853	0RP0050H709	0.05 OHM 1/2W 10% TA52
F855	0RP0050H709	0.05 OHM 1/2W 10% TA52
FB854	0RF0470H609	0.47 OHM 1/2 W 5.00% TA52
FR359	0RF0680K607	0.68 OHM 2 W 5.00% TA62
$\Delta$ FR360	0RF0680K607	0.68 OHM 2 W 5.00% TA62
FR443	0RF0101H609	1 OHM 1/2 W 5.00% TA52
FR448	0RF0470K607	0.47 OHM 2 W 5.00% TA62
FR2948	0RF1000H609	100 OHM 1/2 W 5.00% TA52
J105	0RD4700F609	470 OHM 1/6W 5
J229	0RD3300F609	330OHM 1/6W 5
R11	0RD0472F609	47 OHM 1/6 W 5.00% TA52
R12	0RD0472F609	47 OHM 1/6 W 5.00% TA52
R13	0RD1001F609	1K OHM 1/6 W 5.00% TA52
R14	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R15	0RD1002F609	10K OHM 1/6 W 5.00% TA52
R16	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R17	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R18	0RD1002F609	10K OHM 1/6 W 5.00% TA52
R19	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R20	0RD5602F609	56K OHM 1/6 W 5.00% TA52
R21	0RD5602F609	56K OHM 1/6 W 5.00% TA52
R22	0RD3302F609	33K OHM 1/6 W 5.00% TA52
R23	0RD1002F609	10K OHM 1/6 W 5.00% TA52
R24	0RD3302F609	33K OHM 1/6 W 5.00% TA52
R25	0RD1001F609	1K OHM 1/6 W 5.00% TA52
R26	0RD3901F609	3.9K OHM 1/6 W 5.00% TA52
R27	0RD1002F609	10K OHM 1/6 W 5.00% TA52
R28	0RD2701F609	2.7K OHM 1/6 W 5.00% TA52
R29	0RD1200F609	120 OHM 1/6 W 5.00% TA52
R30	0RD4701F609	4.7K OHM 1/6 W 5.00% TA52
R31	0RD4701F609	4.7K OHM 1/6 W 5.00% TA52
R32	0RD1000F609	100 OHM 1/6 W 5.00% TA52

LOCA. NO	PART NO	DESCRIPTION
R33	0RD4701F609	4.7K OHM 1/6 W 5.00% TA52
R34	0RD4702F609	47K OHM 1/6 W 5.00% TA52
R35	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R36	0RD2401F609	2.4K OHM 1/6 W 5.00% TA52
R38	0RD6802F609	68K OHM 1/6 W 5.00% TA52
R39	0RD2701F609	2.7K OHM 1/6 W 5.00% TA52
R40	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R41	0RD1001F609	1K OHM 1/6 W 5.00% TA52
R42	0RD4701F609	4.7K OHM 1/6 W 5.00% TA52
R43	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R44	0RD4701F609	4.7K OHM 1/6 W 5.00% TA52
R45	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R46	0RD1002F609	10K OHM 1/6 W 5.00% TA52
R47	0RD4701F609	4.7K OHM 1/6 W 5.00% TA52
R48	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R49	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R50	0RD4701F609	4.7K OHM 1/6 W 5.00% TA52
R51	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R52	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R53	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R54	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R56	0RD1001F609	1K OHM 1/6 W 5.00% TA52
R57	0RD0472F609	47 OHM 1/6 W 5.00% TA52
R58	0RD0472F609	47 OHM 1/6 W 5.00% TA52
R59	0RD4701F609	4.7K OHM 1/6 W 5.00% TA52
R60	0RD4701F609	4.7K OHM 1/6 W 5.00% TA52
R61	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R62	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R63	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R64	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R65	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R66	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R67	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R68	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R70	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R71	0RD4701F609	4.7K OHM 1/6 W 5.00% TA52
R74	0RD4701F609	4.7K OHM 1/6 W 5.00% TA52
R75	0RD3001F609	3K OHM 1/6 W 5.00% TA52
R76	0RD4701F609	4.7K OHM 1/6 W 5.00% TA52
R80	0RD4701F609	4.7K OHM 1/6 W 5.00% TA52
R81	0RD4701F609	4.7K OHM 1/6 W 5.00% TA52
R82	0RD2200F609	220 OHM 1/6 W 5.00% TA52
R84	0RD2002F609	20K OHM 1/6 W 5.00% TA52
R85	0RD4701F609	4.7K OHM 1/6 W 5.00% TA52
R87	0RD4701F609	4.7K OHM 1/6 W 5.00% TA52
R88	0RD4701F609	4.7K OHM 1/6 W 5.00% TA52
R101	0RD1200F609	120 OHM 1/6 W 5.00% TA52
R102	0RD0822F609	82 OHM 1/6 W 5.00% TA52
R103	0RS1801H609	1.8K OHM 1/2 W 5.00% TA52
R105	0RD2200F609	220 OHM 1/6 W 5.00% TA52
R107	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R108	0RD1000F609	100 OHM 1/6 W 5.00% TA52

The components identified by mark <sup>A</sup> are critical for safety.  
Replace only with part number specified.

For Capacitor & Resistors,	CC, CX, CK, CN : Ceramic	RD : Carbon Film
the characters at 2nd and 3rd digit in the P/No. means as follows;	CQ : Polyester	RS : Metal Oxide Film
	CE : Electrolytic	RN : Metal Film
		RF : Fusible

LOCA. NO	PART NO	DESCRIPTION
R109	ORD1000F609	100 OHM 1/6 W 5.00% TA52
R110	ORD1000F609	100 OHM 1/6 W 5.00% TA52
R111	ORD1001F609	1K OHM 1/6 W 5.00% TA52
R112	ORD1001F609	1K OHM 1/6 W 5.00% TA52
R113	ORD0102F609	10 OHM 1/6 W 5.00% TA52
R114	ORD1002F609	10K OHM 1/6 W 5.00% TA52
R115	ORD1002F609	10K OHM 1/6 W 5.00% TA52
R116	ORD1002F609	10K OHM 1/6 W 5.00% TA52
R117	ORD2201F609	2.2K OHM 1/6 W 5.00% TA52
R119	ORD0102F609	10 OHM 1/6 W 5.00% TA52
R120	ORD1300F609	130 OHM 1/6 W 5.00% TA52
R125	ORD1000F609	100 OHM 1/6 W 5.00% TA52
R126	ORD1000F609	100 OHM 1/6 W 5.00% TA52
R127	ORD1000F609	100 OHM 1/6 W 5.00% TA52
R128	ORD0222F609	22 OHM 1/6 W 5.00% TA52
R129	ORD1000F609	100 OHM 1/6 W 5.00% TA52
R130	ORD1000F609	100 OHM 1/6 W 5.00% TA52
R131	ORD2200F609	220 OHM 1/6 W 5.00% TA52
R132	ORD0752F609	75 OHM 1/6 W 5.00% TA52
R133	ORD0822F609	82 OHM 1/6 W 5.00% TA52
R134	ORD1001F609	1K OHM 1/6 W 5.00% TA52
R135	ORS1801H609	1.8K OHM 1/2 W 5.00% TA52
R136	ORD1002F609	10K OHM 1/6 W 5.00% TA52
R137	ORD1002F609	10K OHM 1/6 W 5.00% TA52
R138	ORD0102F609	10 OHM 1/6 W 5.00% TA52
R150	ORD1001F609	1K OHM 1/6 W 5.00% TA52
R151	ORD3002F609	30K OHM 1/6 W 5.00% TA52
R152	ORD1002F609	10K OHM 1/6 W 5.00% TA52
R153	ORD1003F609	100K OHM 1/6 W 5.00% TA52
R154	ORD1801F609	1.8K OHM 1/6 W 5.00% TA52
R155	ORD1801F609	1.8K OHM 1/6 W 5.00% TA52
R156	ORD4701F609	4.7K OHM 1/6 W 5.00% TA52
R157	ORD4701F609	4.7K OHM 1/6 W 5.00% TA52
R158	ORD4701F609	4.7K OHM 1/6 W 5.00% TA52
R159	ORD5103F609	510K OHM 1/6 W 5.00% TA52
R160	ORD5602F609	56K OHM 1/6 W 5.00% TA52
R161	ORD5602F609	56K OHM 1/6 W 5.00% TA52
R162	ORD2202F609	22K OHM 1/6 W 5.00% TA52
R163	ORD1000F609	100 OHM 1/6 W 5.00% TA52
R203	ORD1000F609	100 OHM 1/6 W 5.00% TA52
R205	ORD2200F609	220 OHM 1/6 W 5.00% TA52
R211	ORD0752F609	75 OHM 1/6 W 5.00% TA52
R216	ORD0752F609	75 OHM 1/6 W 5.00% TA52
R217	ORD0752F609	75 OHM 1/6 W 5.00% TA52
R218	ORD0752F609	75 OHM 1/6 W 5.00% TA52
R219	ORD0752F609	75 OHM 1/6 W 5.00% TA52
R221	ORD0752F609	75 OHM 1/6 W 5.00% TA52
R224	ORD0752F609	75 OHM 1/6 W 5.00% TA52
R225	ORD0752F609	75 OHM 1/6 W 5.00% TA52
R311	ORD1002F609	10K OHM 1/6 W 5.00% TA52
R312	ORD2202F609	22K OHM 1/6 W 5.00% TA52
R313	ORD1001F609	1K OHM 1/6 W 5.00% TA52

LOCA. NO	PART NO	DESCRIPTION
R314	ORD3001F609	3K OHM 1/6 W 5.00% TA52
R318	0RS0331K619	3.3 OHM 2 W 5% TR
R324	ORD1001F609	1K OHM 1/6 W 5.00% TA52
R326	ORN1801F409	1.8K OHM 1/6 W 1.00% TA52
R327	ORN1801F409	1.8K OHM 1/6 W 1.00% TA52
R328	0RS2200K607	220 OHM 2 W 5.00% TA62
R329	ORN0271J607	2.7 OHM 1 W 5.00% TA62
R330	ORN0151J607	1.5 OHM 1 W 5.00% TA62
R401	ORD1002F609	10K OHM 1/6 W 5.00% TA52
R402	ORD1000F609	100 OHM 1/6 W 5.00% TA52
R403	0RS1001K619	1K OHM 2 W 5% TR
R404	0RS4701K619	4.7K OHM 2 W 5% TR
R405	180-A01B	RW ROUND G 2W 0.11 K TA31(63)
R406	0RS0561K619	5.6 OHM 2 W 5% TR
R407	0RS1001K607	1K OHM 2 W 5.00% TA62
R408	0RD3301A609	3.3K OHM 1/2 W(7.0) 5.00% TA52
R410	0RD3301F609	3.3K OHM 1/6 W 5.00% TA52
R413	ORN4701F409	4.7K OHM 1/6 W 1.00% TA52
R414	0RD6802F609	68K OHM 1/6 W 5.00% TA52
R415	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R416	0RN5602F409	56K OHM 1/6 W 1.00% TA52
R417	0RD4700F609	470 OHM 1/6 W 5.00% TA52
R418	0RD2001A609	2K OHM 1/2 W(7.0) 5.00% TA52
R419	0RN1501F409	1.5K OHM 1/6 W 1.00% TA52
R420	0RD1001F609	1K OHM 1/6 W 5.00% TA52
R421	0RD0221F609	2.2 OHM 1/6 W 5.00% TA52
R422	0RD1001A609	1K OHM 1/2 W(7.0) 5.00% TA52
R423	0RD2701A609	2.7K OHM 1/2 W(7.0) 5.00% TA52
R424	0RS0561K607	5.6 OHM 2 W 5.00% TA62
R425	0RD2400A609	240 OHM 1/2 W(7.0) 5.00% TA52
R426	0RD1000A609	100 OHM 1/2 W(7.0) 5.00% TA52
R450	0RD0221A609	2.2 OHM 1/2 W(7.0) 5.00% TA52
R451	180-C02M	5.6K OHM 1/2 W 10% TA52 ERC12G
R490	180-B01E	RS RECT S 5W 15K J DOUBLE
R601	0RD3602F609	36K OHM 1/6 W 5.00% TA52
R602	0RD3602F609	36K OHM 1/6 W 5.00% TA52
R605	0RD1001F609	1K OHM 1/6 W 5.00% TA52
R606	0RD1001F609	1K OHM 1/6 W 5.00% TA52
R607	0RD1001F609	1K OHM 1/6 W 5.00% TA52
R608	0RD1001F609	1K OHM 1/6 W 5.00% TA52
R609	0RD1001F609	1K OHM 1/6 W 5.00% TA52
R610	0RD1001F609	1K OHM 1/6 W 5.00% TA52
R611	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R612	0RD0102F609	10 OHM 1/6 W 5.00% TA52
R613	0RD1000F609	100 OHM 1/6 W 5.00% TA52
R614	0RD3302F609	33K OHM 1/6 W 5.00% TA52
R615	0RD3302F609	33K OHM 1/6 W 5.00% TA52
R616	0RD1501F609	1.5K OHM 1/6 W 5.00% TA52
R617	0RD1501F609	1.5K OHM 1/6 W 5.00% TA52
R618	0RD0471F609	4.7 OHM 1/6 W 5.00% TA52
R619	0RD0471F609	4.7 OHM 1/6 W 5.00% TA52
R620	0RD0271F609	2.7 OHM 1/6 W 5.00% TA52

For Capacitor & Resistors,  
the characters at 2nd and 3rd  
digit in the P/No. means as  
follows;

CC, CX, CK, CN : Ceramic	RD : Carbon Film
CO : Polyester	RS : Metal Oxide Film
CE : Electrolytic	RN : Metal Film
	RF : Fusible

The components identified by mark  $\Delta$  are  
critical for safety.  
Replace only with part number specified.

LOCA. NO	PART NO	DESCRIPTION
R621	ORD0271F609	2.7 OHM 1/6 W 5.00% TA52
R623	ORD1000F609	100 OHM 1/6 W 5.00% TA52
R624	ORD1000F609	100 OHM 1/6 W 5.00% TA52
R650	ORD1000F609	100 OHM 1/6 W 5.00% TA52
R651	ORD4701F609	4.7K OHM 1/6 W 5.00% TA52
R653	ORD4702F609	47K OHM 1/6 W 5.00% TA52
R654	ORD4702F609	47K OHM 1/6 W 5.00% TA52
R657	ORD4701F609	4.7K OHM 1/6 W 5.00% TA52
R661	ORD4701F609	4.7K OHM 1/6 W 5.00% TA52
R662	ORD1001F609	1K OHM 1/6 W 5.00% TA52
R663	ORD1102F609	11K OHM 1/6 W 5.00% TA52
R803	ORD0222A609	22 OHM 1/2 W(7.0) 5.00% TA52
$\Delta$ R804	ORD4701F609	4.7K OHM 1/6 W 5.00% TA52
R805	ORD1001F609	1K OHM 1/6 W 5.00% TA52
R806	180-A01P	0.13 OHM 2 W 5% TA62 RWR
$\Delta$ R807	0RKZVTA001C	8.2M OHM 1/2 W 5% TA52 UL PILK
R808	ORD3001F609	3K OHM 1/6 W 5.00% TA52
R809	ORS4702K619	47K OHM 2 W 5% TR
$\Delta$ R813	0RKZVTA001K	0.47M OHM 1/2 W 5% TA52 PILKOR
R852	ORS0682K607	68 OHM 2 W 5.00% TA62
R853	ORD4701F609	4.7K OHM 1/6 W 5.00% TA52
R854	ORD4702F609	47K OHM 1/6 W 5.00% TA52
R855	ORD4701F609	4.7K OHM 1/6 W 5.00% TA52
R856	ORD4702F609	47K OHM 1/6 W 5.00% TA52
R858	ORD4701F609	4.7K OHM 1/6 W 5.00% TA52
R860	ORD4701F609	4.7K OHM 1/6 W 5.00% TA52
R861	ORD2001F609	2K OHM 1/6 W 5.00% TA52
"	ORD1501F609	1.5K OHM 1/6 W 5.00% TA52 *RL-
R862	ORD7501F609	7.5K OHM 1/6 W 5.00% TA52
R863	ORD2001F609	2K OHM 1/6 W 5.00% TA52
R869	ORD4701F609	4.7K OHM 1/6 W 5.00% TA52
R870	ORD4702F609	47K OHM 1/6 W 5.00% TA52
R871	ORD2701F609	2.7K OHM 1/6 W 5.00% TA52
R872	ORD4701F609	4.7K OHM 1/6 W 5.00% TA52
R873	ORD4702F609	47K OHM 1/6 W 5.00% TA52
R902	ORD9101F609	9.1K OHM 1/6 W 5.00% TA52
R903	ORS5602K607	56K OHM 2 W 5.00% TA62
R905	ORD1001F609	1K OHM 1/6 W 5.00% TA52
R907	ORS5602K607	56K OHM 2 W 5.00% TA62
R908	ORS4700H609	470 OHM 1/2 W 5.00% TA52
R909	ORN6201F409	6.2K OHM 1/6 W 1.00% TA52
R910	ORF0181K607	1.8 OHM 2 W 5.00% TA62
R912	ORN3301F409	3.3K OHM 1/6 W 1.00% TA52
R913	ORN3301F409	3.3K OHM 1/6 W 1.00% TA52
R914	ORD2401F609	2.4K OHM 1/6 W 5.00% TA52
R915	ORD1001F609	1K OHM 1/6 W 5.00% TA52
R917	ORD1803H609	180K OHM 1/2 W 5.00% TA52
R918	ORS5602K607	56K OHM 2 W 5.00% TA62
R921	ORN1001F409	1K OHM 1/6 W 1.00% TA52
R929	ORD2401F609	2.4K OHM 1/6 W 5.00% TA52
R930	ORS4700H609	470 OHM 1/2 W 5.00% TA52
R938	ORS4700H609	470 OHM 1/2 W 5.00% TA52

LOCA. NO	PART NO	DESCRIPTION
R946	ORD1001F609	1K OHM 1/6 W 5.00% TA52
R947	ORD2401F609	2.4K OHM 1/6 W 5.00% TA52
R1002	ORD2403F609	240K OHM 1/6 W 5.00% TA52
R1003	ORD2403F609	240K OHM 1/6 W 5.00% TA52
R1005	ORD0752F609	75 OHM 1/6 W 5.00% TA52
R1006	ORD0752F609	75 OHM 1/6 W 5.00% TA52
R1007	ORD0752F609	75 OHM 1/6 W 5.00% TA52
R1501	ORD0472F609	47 OHM 1/6 W 5.00% TA52
R1502	ORD3300F609	330 OHM 1/6 W 5.00% TA52
R1503	ORD1801F609	1.8K OHM 1/6 W 5.00% TA52
R1504	ORD4701F609	4.7K OHM 1/6 W 5.00% TA52
R2906	ORD1500F609	150 OHM 1/6 W 5.00% TA52
R2907	ORD1600F609	160 OHM 1/6 W 5.00% TA52
R2908	ORD3001F609	3K OHM 1/6 W 5.00% TA52
R2909	ORD1500F609	150 OHM 1/6 W 5.00% TA52
R2910	ORD3001F609	3K OHM 1/6 W 5.00% TA52
R2911	ORD5601F609	5.6K OHM 1/6 W 5.00% TA52
R2912	ORD3001F609	3K OHM 1/6 W 5.00% TA52
R2921	ORD3000H609	300 OHM 1/2 W 5.00% TA52
R2922	ORD3000H609	300 OHM 1/2 W 5.00% TA52
R2928	ORD0102F609	10 OHM 1/6 W 5.00% TA52
R2929	ORD1000F609	100 OHM 1/6 W 5.00% TA52
R2930	ORD0102F609	10 OHM 1/6 W 5.00% TA52
R2931	ORD1000F609	100 OHM 1/6 W 5.00% TA52
R2932	ORD0822F609	82 OHM 1/6 W 5.00% TA52
R2933	ORD0822F609	82 OHM 1/6 W 5.00% TA52
R2934	ORF0102J607	10 OHM 1 W 5.00% TA62
R2935	ORD1202H609	12K OHM 1/2 W 5.00% TA52
R2936	ORD2001H609	2K OHM 1/2 W 5.00% TA52
R2937	ORD5602H609	56K OHM 1/2 W 5.00% TA52
R2938	ORD5602H609	56K OHM 1/2 W 5.00% TA52
R2939	ORD1201H609	1.2K OHM 1/2 W 5.00% TA52
R2940	ORD1501H609	1.5K OHM 1/2 W 5.00% TA52
R2941	ORD1501H609	1.5K OHM 1/2 W 5.00% TA52
R2942	ORD0391H609	3.9 OHM 1/2 W 5.00% TA52
R2943	ORD0472H609	47 OHM 1/2 W 5.00% TA52
R2944	ORD0391H609	3.9 OHM 1/2 W 5.00% TA52
R2945	ORD0472H609	47 OHM 1/2 W 5.00% TA52
R2946	ORS8200J607	820 OHM 1 W 5.00% TA62
R2947	ORS8200J607	820 OHM 1 W 5.00% TA62
R2955	ORD2202H609	22K OHM 1/2 W 5.00% TA52
R2959	ORD5101F609	5.1K OHM 1/6 W 5.00% TA52
R2990	ORD0222F609	22 OHM 1/6 W 5.00% TA52
<b>SPARK GAP</b>		
SG904	6918VAX002H	SPARK GAP,WSP-122N 1200V -100V,+300V
SG911	6918VAX002D	SPARK GAP,WSP-301M 300V 20% AXIAL TYPE
SG912	6918VAX002D	SPARK GAP,WSP-301M 300V 20% AXIAL TYPE
SG913	6918VAX002D	SPARK GAP,WSP-301M 300V 20% AXIAL TYPE
<b>SWITCH</b>		
SW1501	140-315A	SWITCH,TACT SKHV17910B NON 12V

The components identified by mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

LOCA. NO	PART NO	DESCRIPTION
SW1502	140-315A	SWITCH,TACT SKHV17910B NON 12V
SW1503	140-315A	SWITCH,TACT SKHV17910B NON 12V
SW1504	140-315A	SWITCH,TACT SKHV17910B NON 12V
SW1505	140-315A	SWITCH,TACT SKHV17910B NON 12V
SW1506	140-315A	SWITCH,TACT SKHV17910B NON 12V
$\Delta$ SW1511	6600VM2002A	SWITCH,PUSH SDKEA3 IEC 250V 8A HORIZO

#### FILTER & CRYSTAL

F854	125-022K	FILTER(CIRC),FERRITE 1UH
F1201	6200VKR001C	FILTER(CIRC),LPF 2EA H355LDJ-K5215
FB204	125-123A	FILTER(CIRC),FERRITE BFD3565R2F
FB301	125-022K	FILTER(CIRC),FERRITE 1UH
FB401	125-022K	FILTER(CIRC),FERRITE 1UH
FB403	125-022K	FILTER(CIRC),FERRITE 1UH
FB405	125-022K	FILTER(CIRC),FERRITE 1UH
FB406	125-022K	FILTER(CIRC),FERRITE 1UH
FB803	125-022K	FILTER(CIRC),FERRITE 1UH
FB852	125-022K	FILTER(CIRC),FERRITE 1UH
FB853	125-022K	FILTER(CIRC),FERRITE 1UH
FB902	125-022K	FILTER(CIRC),FERRITE 1UH
L103	125-022K	FILTER(CIRC),FERRITE 1UH
L1010	125-022K	FILTER(CIRC),FERRITE 1UH
T811	150-F06T	FILTER(CIRC),SQE3535 20MH
T1511	150-F09A	FILTER(CIRC),SQE2222 7-14MH 0.37PHY 48TURN
X11	156-A01L	RESONATOR,CRYSTAL HC49U SUNNY RADIAL 6.000MHZ
X601	156-A02M	RESONATOR,CRYSTAL HC49U KJE RADIAL 18.432MHZ
X1100	6202VDB007B	RESONATOR,CRYSTAL HC49U SUNNY RADIAL 20.250MHZ
X1101	6202VDB007B	RESONATOR,CRYSTAL HC49U SUNNY RADIAL 20.250MHZ

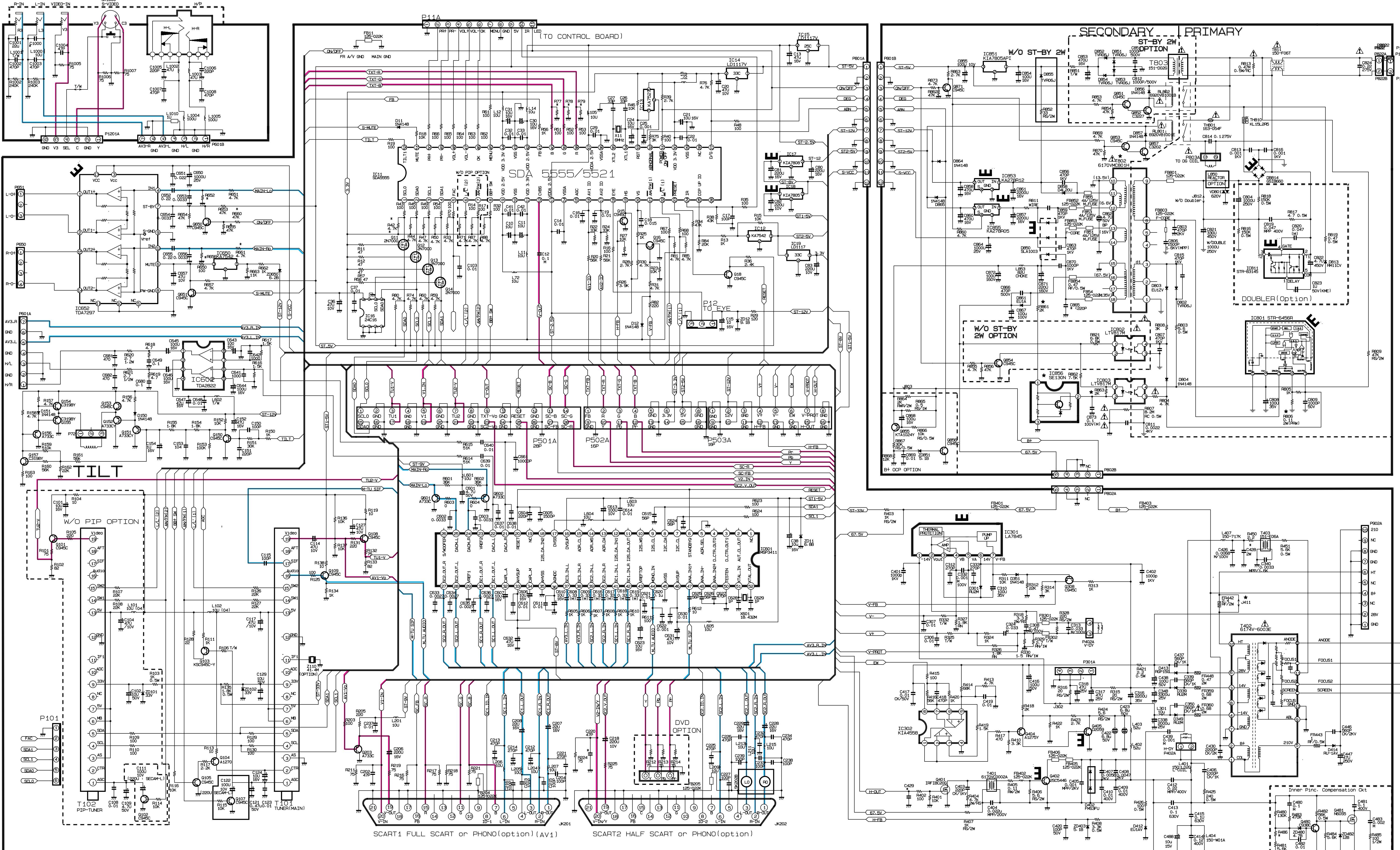
#### ACCESSORIES

A1	3828VA0263L	MANUAL,OWNERS MK/REG/SPEC LG HU/EN 03
A2	6710V00032U	REMOTE CONTROLLER MC-017A W/PIP
A2	6710V00032V	REMOTE CONTROLLER MC-017A W/O PIP
B1	3890V01013A	BOX,RE-29FA31P.AUPLRH 29" NEW DWR2

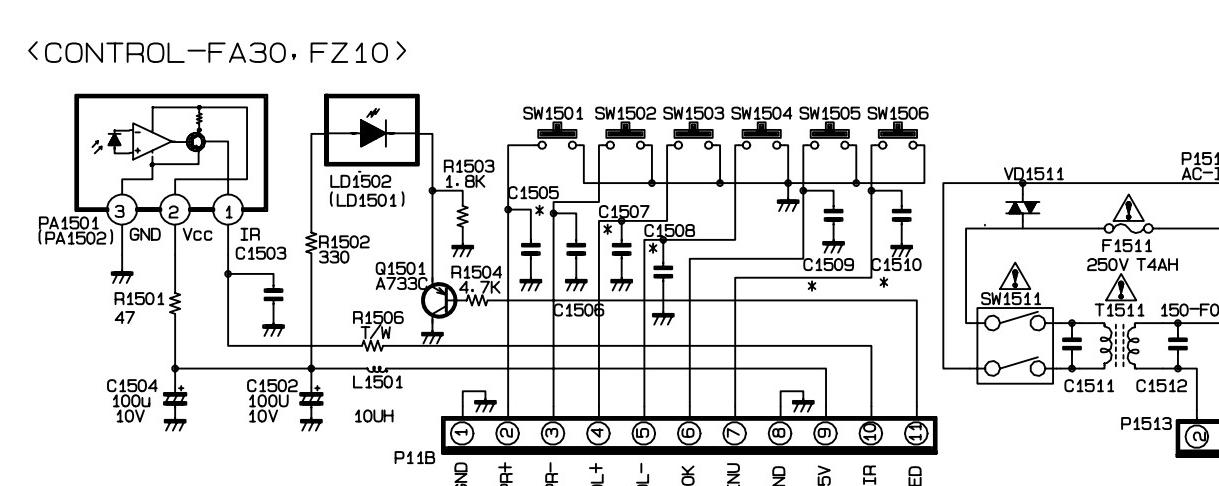
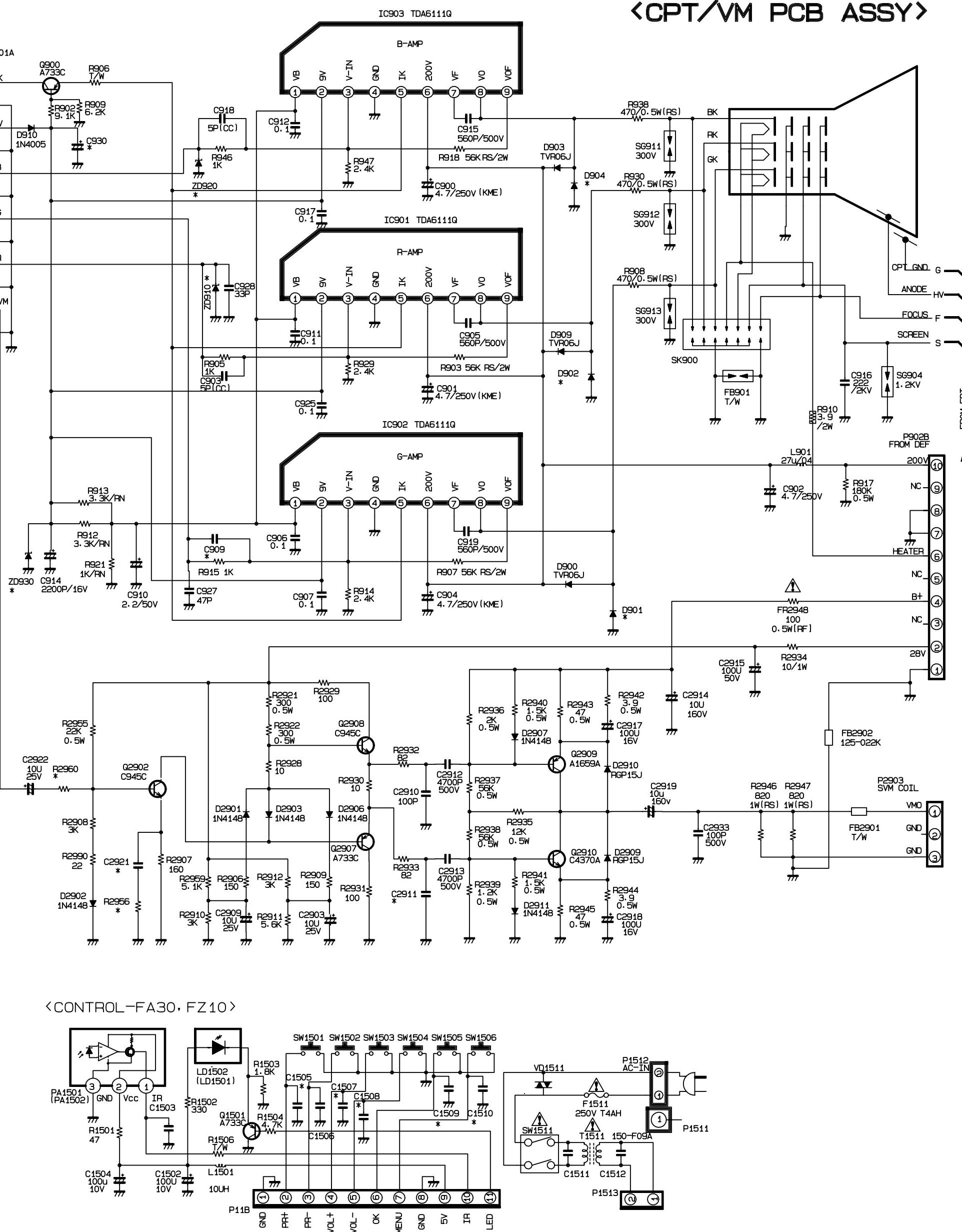
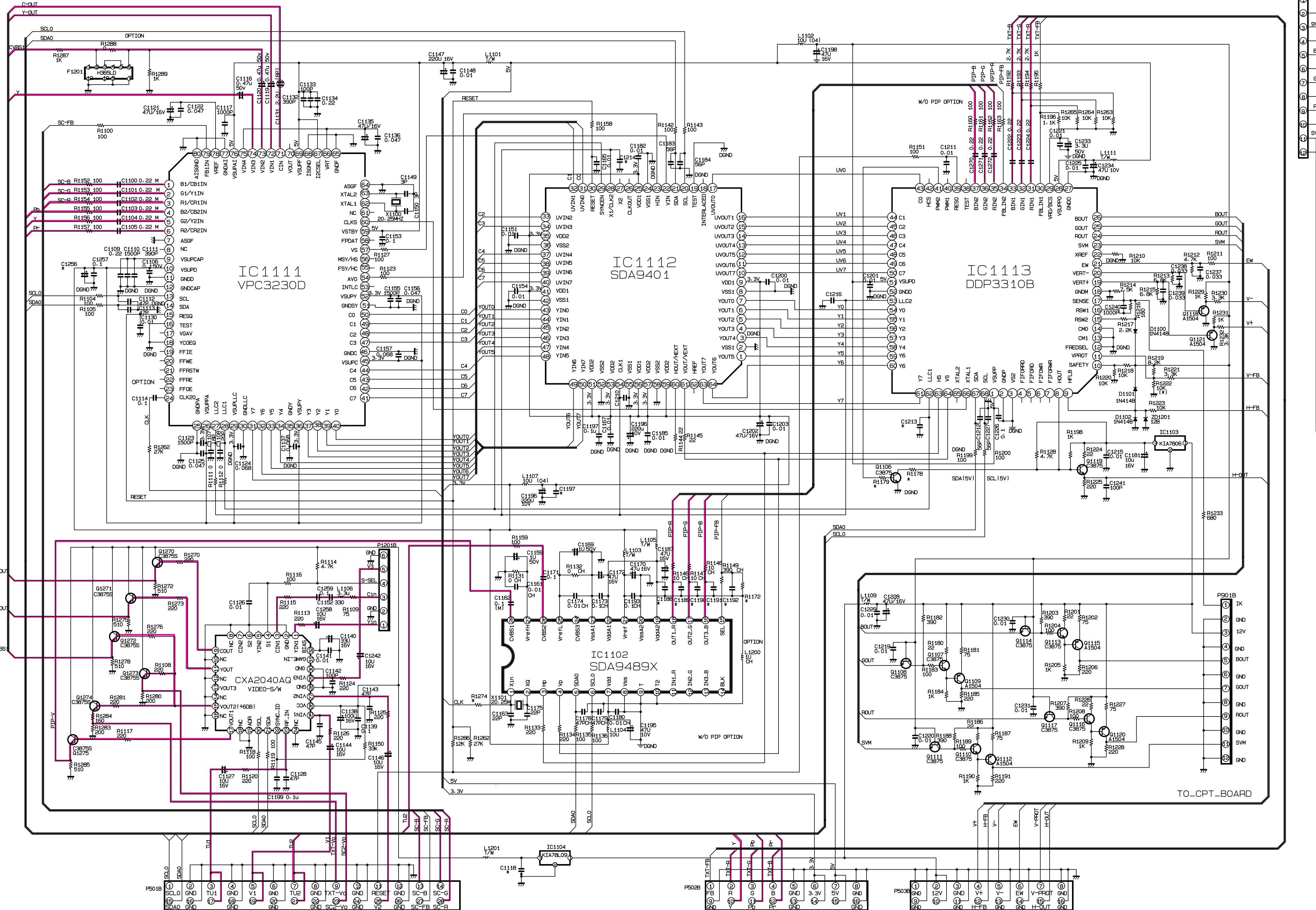
#### MISCELLANEOUS

$\Delta$ F1511	0FS4001B53C	FUSE,4000MA 250V 5.2X20 CY/CE
JK201	6612VMH001A	JACK,SCART UPJ-R1-018 RGB 21 PI
JK202	6613V00011A	JACK ASSY,PMJ018A 21P SCART+A/
PA1502	6726VV0006J	REMOTE CONTROLLER RECEIVER TSOP2238MQ1
$\Delta$ RL801	6920VB1001E	RELAY,SDT-S-105LMR OEG 5V 0.05A 250V
RL802	6920VB1001E	RELAY,SDT-S-105LMR OEG 5V 0.05A 250V
$\Delta$ SK900	6620VBD002A	SOCKET (CIRC),CPT PCS029A 9PIN 14/360
SK1000	6613V00004A	JACK ASSY,PJ6054A EARPHONE+S-VHS+3P
T101	6700VPF009N	TUNER,TAUL-M230D LGIT PAL DIN .
"	6700PF0001B	TUNER,TAUL-S210D
"	6700PF0001A	TUNER,TAUL-S210D LG PAL FS BG+LL
T102	6700VPF009P	TUNER,TAFL-M231P LGIT PAL PHONO .
"	6700PF0001B	TUNER,TAFL-S211P
$\Delta$ TH801	163-058D	THERMISTOR,PTC 03-07MX 7OHM 20%
TH810	163-048D	THERMISTOR,KL15L2R5 +/- 15% 125V
VD801	164-003K	VARISTOR,SVC621D-14A 620V 0% UL/C

# CIRCUIT DIAGRAM FOR MC017A CHASSIS



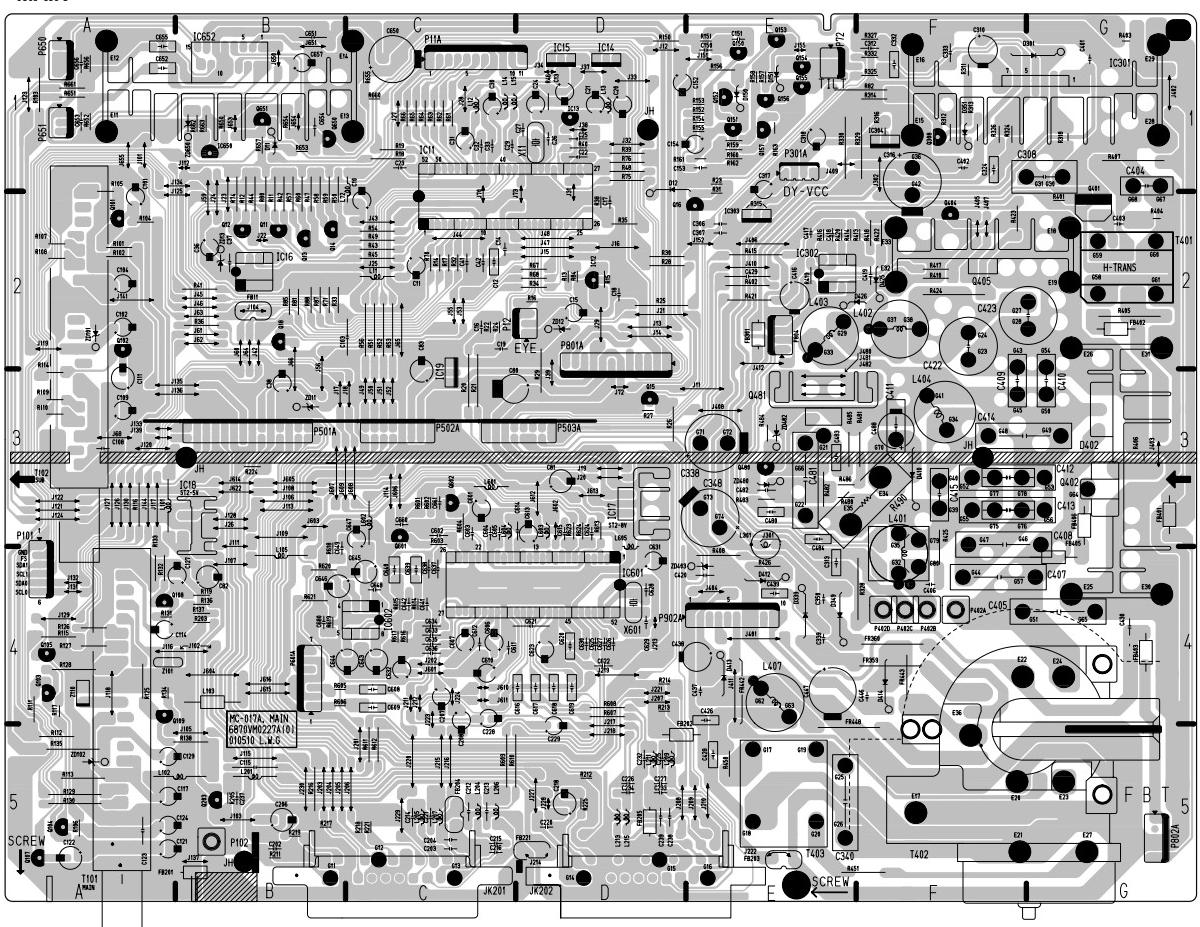
# Sub 100Hz Board



**P/NO: 3854VA0086A-S2  
DATE: 2001.05.17**

### PRINTED CIRCUIT BOARD

MAIN



**SVC. SHEET : 3854VA0086A-S1**  
**3854VA0086A-S2**